

DOCUMENT RESUME

ED 175 454

IR 007 623

AUTHOR Kleinbaum, David G.
TITLE Guidelines for Inclusion of Mediated (Audio-Visual) Instructional Materials in the Resource and Diagnostic Systems at the University of New Hampshire.
INSTITUTION New Jersey State Library, Trenton. Library Development Bureau.
SPONS AGENCY National Science Foundation, Washington, D.C.
PUB DATE Jul 78
CONTRACT SED-A01-76-12191
NOTE 144p.; Legibility of the appendices varies
EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Bibliographies; Evaluation Criteria; *Evaluation Methods; Higher Education; *Instructional Materials Centers; *Instructional Media; *Media Selection; Programs

ABSTRACT

This report identifies special characteristics of AV materials and special considerations for their use, provides a brief overview of general recommendations for the incorporation of statistical AV materials into the resource system, diagnostic system, and summer sessions at the University of New Hampshire, and gives detailed procedures for carrying out the general recommendations. Guidelines are also provided for updating a media survey conducted by the American Statistical Association which has resulted in two lists--a 1974-75 compilation of audiovisual materials offered for sale as reported by publishing companies, and a 1975 compilation of predominately unpublished materials developed by statistics instructors and/or instructional designers for local use. Included in the text are a survey report form, a resource classification form, a checklist for initial inclusion in the system, an evaluation form for appraising the content of materials, an attitude questionnaire, and a brochure for a proposed workshop on uses of media in teaching statistics. Appendices include the two ASA lists, appraisals of selected media, and referenced survey and appraisal forms.
(Author/JEG)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED175454

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

GUIDELINES FOR INCLUSION OF
MEDIATED (AUDIO-VISUAL)
INSTRUCTIONAL MATERIALS IN
THE RESOURCE AND DIAGNOSTIC SYSTEMS
AT THE UNIVERSITY OF NEW HAMPSHIRE

developed by

David G. Kleinbaum, Ph.D.
Department of Biostatistics
University of North Carolina at Chapel Hill

in collaboration with

Anna Kleinbaum
Kleinbaum Communications Design
Chapel Hill, NC

July 1978

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

David C. Kleinbaum

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

Partially Supported by National Science Foundation Project #SED A01 76-12191
Entitled: Diagnostic and Instructional Services for College Students
of Statistics
University of New Hampshire

IR007623 (192)

TABLE OF CONTENTS

	PAGE
List of Exhibits	iii
I. INTRODUCTION	1
General Concepts	1
Overview of Guidelines	3
II. RESOURCE SYSTEM GUIDELINES FOR MEDIA	6
Update of Media Survey	6
Media Descriptors for Resource System	12
Initial Selection of Media (Criteria for Inclusion in Resource System)	17
Obtaining Media Materials	18
Evaluation of Media	18
III. SUMMER WORKSHOP GUIDELINES FOR MEDIA	28
Media Workshop for Instructors	28
Summer Sessions for Students	31
APPENDICES	
A: 1974-1975 List of Published A-V Materials	
B: 1975 List of Predominately Unpublished A-V Materials	
C: Appraisals of Selected Statistics Media	
D: Referenced Survey and Appraisal Forms	

LIST OF EXHIBITS

	PAGE
1. Survey Report Form for Mediated Instructional Materials	10
2.a. Resource Classification Form for Mediated Instructional Materials	13
2.b. Example of Completed Resource Classification Form	15
3. Checklist for Initial Inclusion in Resource System	17
4. Evaluation Form: Content Appraisal of Mediated Instructional Materials	22
5. Attitude Questionnaire	24
6. Brochure for Proposed Workshop: Using Media to Help Teach Statistics	

I. INTRODUCTION

This first section presents a general introduction and outline of the overall guidelines for the inclusion and utilization of mediated instructional materials in the diagnostic and resource retrieval systems of the project, "Diagnostic and Instructional Services for College Students of Statistics" centered at the University of New Hampshire. Subsequent sections of this report will elaborate on this outline with primary emphasis on recommendations for the resource system.

A. GENERAL CONCEPTS

The integration of audio-visual (or "mediated") materials into the diagnostic and resource retrieval systems poses unique problems not characteristic of other kinds of instructional materials in print format and this requires consideration of special procedures for the identification of mediated instructional materials and for the retrieval and use of them. Furthermore, for effective utilization, an educational program dealing with the use and misuse of audio-visual components themselves as well as their integration into the proposed system needs to be developed and implemented.

1. Special Characteristics of Media. Among the special characteristics of audio-visual materials are their relatively high cost and their questionable feasibility for collection plus similar problems regarding their duplication for national distribution as well as for evaluation by statistics teachers, educational experts and/or intended student audiences. Included in this report is the additional terminology required as descriptors to be incorporated in any storage and retrieval system; additional queries (e.g., dealing with quality of the media used) required for evaluation and storage and retrieval of evaluation data about the audio-visual materials; and additional information that must be obtained for selection using minimum standards, documentation and evaluation.

Other special features of mediated instructional materials that should be considered in any diagnostic and resource system include:

- their value (along with certain kinds of print materials) in improving attitudes. Negative attitudes about statistics and lack of confidence of students in other fields in approaching statistics are well documented. These attitudinal problems must be diagnosed and mediated materials recommended to solve them. Thus a strong link between the diagnostic system and the resource system may be established.

- their value in improving interest and in holding attention. The importance of adding color, increasing cues and using a variety of methods of teaching is well known to stimulate interest and hold attention.

- their capability to present visualizations of concepts that would otherwise be unclear (not just obvious visuals, like the concept of "bell-shaped" but complex (to the non-mathematically sophisticated student) principles like "when n is large and p is small, and np is small relative to n , then the poisson approximation to the binomial is appropriate"). The importance of visualized concepts suggests the importance of incorporation "visual" questions into the diagnostic system although such an effort would be difficult to carry out within the system without a highly sophisticated computer system. (The PLATO system has accomplished this task; for our system, reference to paper-pencil tests would seem appropriate.)

- their value for increasing the length of time that concepts are remembered. Research in long term memory storage suggests that material may be stored in visual images. This implies the importance of visual input for all learners.

- their value for the "visual learner." Although this may be a minor consideration for the graduate student who had to be an adequate verbal learner to have advanced in school this far, it is an important consideration for the undergraduate student, and therefore it would be wise to use the diagnostic system to identify those who prefer and/or need visual input and provide them with visual experiences.

2. Special Consideration for Use. Regarding the manner in which audio-visual materials are used in statistical (or any other form of) instruction, it is important to recognize that such materials do not have to be considered merely as supplements or aids to other more basic or more complete print materials or lectures. On the contrary they may be adequate and frequently more appropriate substitutes for other forms of instruction. They may, in fact, be the main or only carriers of the instructional message.

Furthermore, proper equipment and facilities, both in the classroom and for the self-instructional use of audio-visual materials, are essential for making effective use of such materials. Naturally, if one cannot see or hear the presentation properly, the learning process may be negatively affected. Likewise, if it takes 20 minutes to get a projector and screen to work, or if students complain about inadequate operation of equipment

or unfamiliarity with the handling of the materials (e.g. transparencies) the instructor may be disinclined to try further use of media. In fact, perhaps the most important reason that audio-visuals are not more widely used today is that insufficient attention is given by instructors and administrators to insuring that proper equipment and proper facilities are properly allocated to meet changing needs and that trained personnel to provide and service these components are available.

It is also important to mention that instructors may be disinclined to use mediated materials or equipment simply because of a lack of knowledge or practice in their use. Naturally, for example, one may not be nearly as comfortable with the use of transparencies or slides as with that of a chalkboard. We are aware that, in general, college and university instructors receive little if any prior training for teaching, and so avoidance of varied teaching techniques is only to be expected. The avoidance of media would itself be a useful topic to address and to try to correct during a summer faculty workshop. Ineffective use of audio-visuals because of a lack of knowledge of the different advantages and disadvantages of one medium versus another medium (e.g., slide-tape versus transparency) also fits in this category.

In this report, the above considerations will be incorporated to some extent in the formulation of the recommended guidelines. Before proceeding to specifics, we present here an overview of our general recommendations for incorporating audio-visual (i.e. mediated) instructional materials into the diagnostic and resource system. These recommendations which may be viewed as overall guidelines and goals are as follows:

B. OVERVIEW OF GUIDELINES

Overall guidelines are outlined for the resource system, the diagnostic system and both faculty and student phases of the summer session.

1. Resource System. The resource system should contain a computerized listing plus a printed listing of existing audio-visual materials which

- a. are retrievable (the information, not the materials) by statistics teachers and/or students according to certain key descriptor terms;
- b. have been selected, from the totality of audio-visual materials (most broadly defined) in existence to satisfy certain minimum requirements or have certain characteristics;

- c. are evaluated with regard to some quality standard and have the evaluation retrievable in the system so that potential users can utilize this information in their choices of materials;
- d. are continuously evaluated by users of the resource system with the results fed back into the system as part of updated descriptor information.

Two necessary pre-conditions for accomplishing the above described integration of mediated instructional materials into the resource system are the existence and availability of quality audio-visual materials and the identification of such materials. The American Statistical Association has made headway in searching out such materials in the last three years. The ASA Committee on Audio-Visual Instructional Materials has developed two lists of materials, one (1976) containing materials published by commercial companies and the other (1975) containing mostly unpublished and relatively unavailable materials developed by statistics teachers in their local academic environment. Both types of materials remain, on the whole, unevaluated, certainly in terms of a broad-based evaluation following a standard form. However, the American Statistician, beginning in 1977 has published short appraisals/reviews of selected mediated materials (e.g. Kleinbaum and Kuebler's May 1978 review of Wiley's two films on inferential statistics). Also, these writers (and others) have appraised (in an unpublished report) some materials from both lists and our general conclusions were that both lists contain some materials that are of very good quality and some of poor quality. The commercial materials, as expected, are often of better technical quality (the art, sound, photography, etc.), but some of the locally produced non-commercial materials nevertheless exhibit very careful planning, both media-wise and message-wise. Consequently, in order to avoid missing out on some potentially good materials, we would recommend that materials on both lists be considered for the U.N.H. resource system and that, moreover, in order to have sufficient descriptive information about these materials, particularly the non-commercial ones, both lists be updated with an additional survey.

2. Diagnostic System. The diagnostic system should contain:

- a. questions which allow for the assessment of attitudinal problems of student users and for linking of such assessment with audio-visual and other resource materials appropriate for improving these attitudes.

- b. questions which test learning of visual concepts.
- c. questions which diagnose visual learning capability and indicate students who need visual input ("visual learners").
- 3. Summer Sessions or Workshops. These should include both those for faculty and those for students.

Media Workshop for Faculty. The workshops for the faculty should:

- a. educate the faculty on the use and misuse of audio-visual instructional materials and equipment, including having the participants actually practice using mediated materials of different kinds.
- b. display audio-visual materials of varied quality and transferability together with their listed description.
- c. demonstrate how faculty can use the resource system to retrieve information about appropriate resource materials (include practice).
- d. provide on-site faculty (peer review) appraisal of audio-visual materials.
- e. include an optional component for those statistics teachers who would like to learn to design audio-visual materials.
- f. illustrate how the diagnostic system can link with the resource system with regard to improving negative attitudes of students, and to ameliorating other learning disabilities as well as to retrieving practice exercises and test items to fit the mediated program (details not provided in this report).
- g. illustrate visual concept questions in the diagnostic system (details not provided in this report).

Summer Sessions for Students. The workshops for students should:

- a. provide a testing and a training ground for faculty use of the diagnostic and resource systems with regard to audio-visual components. Faculty should be required to use several mediated materials of various kinds and to consider attitudinal deficiencies and their remedies during the course.
- b. provide student evaluation (field-testing) of two kinds. First the students can appraise the materials directly and second their performance on tests can provide a measure of the effectiveness of the materials.

II. RESOURCE SYSTEM GUIDELINES FOR MEDIA

Guidelines for the resource system will be expanded in this section. These recommendations will include guidelines for the media survey update, guidelines for descriptive information for the resource system and guidelines for the initial selection of media to be included in the resource retrieval system.

A. UPDATE OF ASA MEDIA SURVEY

The first step required for developing a resource system of audio-visual instructional materials is the identification of the entire extant collection of such materials to provide candidate materials for the resource system. That not all identified materials should be incorporated into the system follows from the fact that the inclusion of any materials which are of extremely poor quality, unavailable, non-transferable (either physically or conceptually) or extremely costly would not be useful for nationwide distribution to instructors. Indeed, retrieval of such unusable materials might actually discourage further use of the system, especially if such information about unusable materials were frequently retrieved.

The extent to which the selection of materials should be restricted is debatable, since a relatively small set of excellent mediated instructional materials would make selection easier for the instructor by narrowing down his or her choices, would on the whole give more satisfactory results in terms of effectiveness, and would be easy to store, duplicate, distribute and evaluate. However, a larger collection of materials of more varying quality would avoid both the narrowness of a small set of carefully selected materials and the expense of an extensive broad based evaluation to weed out the materials of lower quality. The University of New Hampshire project funds could not cover such an expensive operation anyway, but regardless of the cost factor, a larger collection of materials of more variable quality will increase flexibility for the instructors using the resource system for selection of appropriate materials and increase the opportunity for wider based evaluation through other funding at a later date. Wider tolerance for inclusion will also increase each instructor's probability of retrieving some material of some minimum quality on a given topic by including somewhat lower quality materials and by allowing for inclusion of more specific and less broadly applicable topics, that is, those designed for restricted audiences, within the system.

1. The ASA Survey Lists to Date. The identification and updating of existing audio-visual materials has already (during the past three years) become the charge of the American Statistical Association Committee on Audio-Visual Instructional Materials. This committee has, to date, compiled two lists, one a 1974-75 compilation of audio-visual materials offered for sale as of that reporting by publishing companies (See Appendix A) and the other a 1975 compilation of predominately unpublished materials (See Appendix B) developed by statistics instructors and/or instructional designers in their local institutional settings and obtained through a fairly extensive survey of statistics departments and mathematics departments with statistics programs. The materials on these lists generally are unevaluated except for some isolated reviews of a small subset of the identified materials and, beginning in 1977, for the short appraisal/reviews published in the American Statistician. These writers, in particular, have carried out on a limited scale, using an outside educational consultant through a small University of North Carolina research award, an appraisal of selected media materials from both lists (See Appendix C). The educational reviews we have seen together with information reported in the survey by the authors/designers themselves about their materials indicate that there are vast differences in the design systems used to develop the materials, the authors' understanding of design principles and knowledge about learning psychology, as well as vast differences in investment of time, cost to purchaser, documentation, development staff size, composition, training, skill and technical capability and expertise of the production operation. Materials also vary widely in regard to attention to detail of design and visual communication and content coverage and accuracy of content detail, strongly indicating the widely varying quality of existing mediated materials in all aspects including content, educational design and technical execution.

Several differences between the two lists (commercial published and local unpublished) of materials are worth noting. The first is the basically different motivation for their development. The list of published materials consists of materials developed to appeal to a large enough audience so that the investment returns a profit whereas the unpublished list includes materials developed for the primary purpose of improving instruction in the home institution. An advantage of materials on the first list is that their design was clearly intended to be transferable to a wide assortment of users.

Another advantage in some cases, for example the films published by Wiley and Sons, Inc., is the greater financial input as a result of commercial backing which results in slick artistic and technical quality. In a case such as this, advanced techniques of advertising and market appeal have been employed in a way that few instructional designers know. The result is that statistics is "sold" to the audience. A disadvantage of the profit oriented materials is that in some cases the commercial developers do not have content specialists with good credentials working on the development of these materials (e.g., several published transparency materials); this results in inappropriate, inaccurate or out-of-date content. Furthermore, profit motivated materials, in order to be cost-effective, may cut corners in design, a practice which results in a product which is potentially less effective for instruction (e.g. the lack of color, overlays or gates in most published transparencies).

The second group of materials, the unpublished ones, on the other hand, has been, in general, designed to satisfy specific local instructional needs and consequently the materials on this list are likely to have been designed with a commitment toward getting the instructional message across in the most effective way. Where sufficient local funds have been available, they may be of very high quality. Therefore they may be effective teaching devices, but since they were not designed for a market or even for distribution, they may not be cost-effective or they may not be transferable. And in addition, since local financial support and career rewards for educational efforts have been generally quite limited over the years, the ability (in terms of support staff) and motivation of local producers of mediated instructional materials has been limited, as has been the quality of the products produced.

2. Recommendation for Updating Lists. Because the above mentioned two lists represent the known, currently existing audio-visual materials in statistics, these lists necessarily represent at present the baseline information for the resource system listings of audio-visual materials. Nevertheless, although use and development of such materials in statistics has been until recent years very limited, a spurt in recent activity has been noted. Recent advances in technology (i.e., equipment), in instructional technology (design and evaluation systems), in training (e.g., of educational media specialists) and in the increasing acceptance of the potential effectiveness of more modern instructional media approaches are evidence

of and perhaps in some cases even the cause of this recent activity and development. The potential new materials which may have been developed in the last year or two together with advances in technique and knowledge point toward the need for a continued and on-going update of survey lists and more thorough documentation of materials that have been or are being developed. For example, since the compilation of the 1975 survey of unpublished materials, these writers have designed, produced and field tested three new slide-tape modules with viewing guides which have been published together with other materials which have been previously listed. Also, these writers are aware of two recently marketed films by John Wiley and Sons and a slide-tape series developed by Prismatron, Inc. during the past year and a half.

Whether the charge of continued updating should rest entirely with the American Statistical Association Committee or with some other group like UNH depends on available funds. The ASA Committee does not at present have sufficient funding nor the time commitment of its members to carry out a thorough and continuing listing of materials. That committee is also not fully committed at this juncture to the utility of the list of unpublished materials even though it is through such materials that many of the most creative efforts in statistics education are being made. Consequently, it is assumed that the recommendations given below for updating, initial selection and evaluation of mediated materials will be incorporated into and carried out by the UNH project.

3. Procedure for Updating. A current listing of audio-visual materials would be obtained as follows: First, a survey report form (Exhibit 1) would be used to provide basic descriptive information of resource materials and also to select a reduced subset of materials which can reasonably be considered transferable. Several copies of this form will be sent to each of several groups of organizations or individuals as follows:

- a. all persons who contributed information about materials they have developed in the 1975 ASA Survey (Appendix B).
- b. publishing companies who listed materials in the 1974-75 ASA Survey (Appendix A) or who recently have advertised newly developed mediated statistics materials.
- c. statistics departments and mathematics department with statistics

**SURVEY REPORT FORM FOR MEDIATED (A-V) INSTRUCTIONAL MATERIALS
FOR ENTRY IN THE UNH RESOURCE RETRIEVAL SYSTEM***

This form is designed to be filled out by the author of the program, but it may be completed by another reporter. If you are not the author, give your name on the left, and if from another department and institution than the author, give complete information. Author information goes on the right.

Reporter: _____	Author(s): _____
School: _____	School: _____
University: _____	University: _____
Address: _____	Address: _____
ZIP _____	ZIP _____

Please fill out a separate form for each program or unit of instruction. Fill in as many blanks and circle as many numbers as considered appropriate for providing complete information about the instructional material being reported.

Title or Specific Identification of material: _____

Primary Key Term: _____ Secondary Key Term: _____

Other Key Terms: _____ Copyright: 1..Yes 2..No 3..Pending

Resource Description: 1..Article, monograph 9..Audio-visual (media) ▶ SEE SPECIAL DISRIPTORS ON NEXT PAGE
 2..Programmed learning 10..Data base 17..Objectives
 3..Cases 11..Summary discussion 18..Recommendations for use
 4..Short problem 12..Formulas summary 19..Practice or review questions
 5..Longer problem 13..Tests 20..Guide or outline
 6..Books/chapters 14..Explanation 21..References
 7..Handouts 15..Self-instructional package 22..Part of a series #units: _____
 8..Computer programs 16..Pretest Name series: _____

Resource Type: 1..Background 4..Comprehension 7..Other: _____
 2..Review material 5..Application or analysis
 3..Computation 6..Introduction of concepts

Prerequisites: 1..None 3..Calculus 5..Statistics SPECIFY: _____
 2..Non-calculus 4..Computer knowledge

Area of application: 1..General 5..Education 9..Sociology
 2..Biological Sciences 6..Natural sciences 10..Engineering
 3..Business 7..Psychology 11..Health Sciences: _____
 4..Economics 8..Social sciences 12..Other: _____

Difficulty level: Least ◀ 0 1 2 3 4 5 6 7 8 9 ▶ Most

Working minutes required: 5 10 15 20 30 45 60 60+

Instructor prep. required: 5 10 15 20 30 45 60 60+

Graphs/charts included: 1..Yes 2..No 3..Other illustrations

Material is sequenced: 1..Yes 2..No Answers are required: 1..Yes 2..No

Evaluation status: 1..still in formative stages 6..appraised by intended audience in recommended setting
 2..complete but no evaluation 7..tested by cognitive learning achieved in recommended setting
 3..appraised by stat. teachers &/or education experts at our institution 8..tested for effective results achieved in recommended setting
 4..appraised as in 3 outside our institution 9..(if evaluated) results available upon request
 5..appraised by students (non-classroom)

If evaluated, overall results can be summarized as:

10..Poor 11..Fair 12..Good 13..Excellent 14..Outstanding

Instructional Setting: 1..self-instruction 2..group instruction 3..PSI 4..audio-tutorial

* The University of New Hampshire has set up this resource system with funds granted by the National Science Foundation.

Descriptors for
A-V (media)
only:

35MM SLIDES: No: _____ 1..color 2..b/w 35 MM FILMSTRIP: No. frames: _____ 3..color 4..b/w
AUDIOTAPE: running time: _____ size of tape: _____ 5..cassette 6..reel to reel
VIDEOTAPE: running time: _____ size of tape: _____ 7..cassette 8..reel to reel 9..color 10..b/w
FILM: running time: _____ 11..super 8 12..16MM 13..8MM
SUPER 8 FILMLOOP: 14..color 15..b/w
OVERHEAD TRANSPARENCIES: No: _____ 16..diaz 17..thermoFax 18 other: _____
19..color 20..b/w 21..gates 22..overlays
20..DEVICES describe: _____
21..WALL CHARTS No: _____
22..BOARD GAME 23..SIMULATION GAME 24..PICTURE SERIES 25..OTHER MEDIA describe: _____

26..designed to carry entire instructional message 27..designed to supplement lecture

Availability
and access:

- 1..not available
- 2..available for free
- 3..available for loan for \$ _____
- 4..available for duplication for \$ _____
- 5..available for preview for \$ _____
- 6..available for purchase for \$ _____

Distributor: _____

Address: _____

Ordering
information: _____ ZIP _____

SPECIFIC OBJECTIVES OF YOUR PROGRAM (condense if necessary):

ABSTRACT TO FIT SPACE (not more than 50 words):

THE INFORMATION YOU GIVE BELOW WILL NOT BE ENTERED IN THE UNH RESOURCE RETRIEVAL SYSTEM.

If your A-V presentation is not currently available to the public,
would you release distribution rights (retaining authorship and copyright)? 1..Yes 2..No
Are you willing to have your materials evaluated and reviewed as part of this project? 1..Yes 2..No
Will you lend them to UNH for evaluation? 1..Yes 2..No
Are you willing to have your materials revised as part of this project? 1..Yes 2..No

In your own judgment is your material:

- 1..a good use of the medium
- 2..well organized and easy to follow
- 3..accurate and up-to-date
- 4..broadly applicable
- 5..technically of good quality
- 6..holds student interest
- 7..worthy of national distribution

THANK YOU FOR YOUR ASSISTANCE.

PLEASE MAIL THE COMPLETED FORM TO: George Miaoulis, University of New Hampshire Office of Academic Computing,
304 McConnell Hall, Durham, New Hampshire, 03824.

departments in the United States and Canada currently listed in the yearend edition of the American Statistician.

- d. selected mathematics departments or mathematics instructors connected with the UMAP project (formerly called ZALC) a mathematics resource retrieval system out of Newton, Massachusetts funded through the National Science Foundation.

It is likely that each of the groups listed above should be written an appropriate covering letter explaining the purpose of the survey, something about the statistics diagnostic and resource systems and services they will offer, the relationship of the survey to the previous American Statistical Association surveys, and the reason they are being contacted. The information they had previously filled out should either be inserted in the new form or a copy of their previous submissions should be enclosed with the new forms.

The proposed survey report form (Exhibit 1) represents a synthesis of information and format distilled from various other forms that we have written, reviewed or had previous experience with (e.g. the UMAP Survey Form, the Health Sciences Consortium Coordinator Appraisal Form and the ASA A-V Survey Reporting Form among others as given in Appendix D). The information to be provided by this form is considerably more extensive in scope and detail than that obtained from the previous ASA audio-visual surveys. This will allow for resource system classification input and later retrieval using key descriptive information and it will also provide additional information to be used for weeding out materials not considered to be appropriate for the resource system.

B. MEDIA DESCRIPTORS FOR THE RESOURCE SYSTEM

Exhibit 2a gives the resource classification form to be filled out by UNH personnel based on the information obtained in Exhibit 1 for each A-V material identified from the update survey. The additional media descriptors given on this form were determined after review of the general survey-type forms mentioned in Section II. A above together with various forms dealing with evaluation (See Appendix D). The form includes all the information presently being input for non-A-V instructional materials into the UNH Resource system plus key A-V descriptors and other information considered by these authors to be important additional descriptors, including evaluation summaries, Exhibit 2b provides an example of a completed resource classification form based on Exhibit 1 information to be input into the resource system using the resource classification form.

RESOURCE CLASSIFICATION FORM FOR MEDIATED (A-V) INSTRUCTIONAL
MATERIALS IN THE UNH RESOURCE SYSTEM

Resource # _____

Date _____

Author(s): _____

Address of _____

Primary Author: _____

Title: _____

Copyright: 1. Yes 2. No 3. Pending

Primary Key Term: _____ Secondary Key Term: _____

Other Key Terms: _____

Resource Description: 1. Article, monograph 9. Audio-visual (media) ► SEE SPECIAL DISRIPTORS BELOW
 2. Programmed learning 10. Data base 17. Objectives
 3. Cases 11. Summary discussion 18. Recommendations for use
 4. Short problem 12. Formulas summary 19. Practice or review questions
 5. Longer problem 13. Tests 20. Guide or outline
 6. Books/chapters 14. Explanation 21. References
 7. Handouts 15. Self-instructional package 22. Part of a series #units: _____
 8. Computer programs 16. Pretest
 Name series: _____

Resource Type: 1. Background 4. Comprehension 7. Other _____
 2. Review material 5. Application or analysis
 3. Computation 6. Introduction of concepts
 Prerequisites: 1. None 3. Calculus 5. Statistics SPECIFY: _____
 2. Non-calculus 4. Computer knowledge

Area of application: 1. General 5. Education 9. Sociology
 2. Biological Sciences 6. Natural Sciences 10. Engineering
 3. Business 7. Psychology 11. Health Sciences: _____
 4. Economics 8. Social Sciences 12. Other: _____

Difficulty level: Least ◀ 0 1 2 3 4 5 6 7 8 9 ▶ Most

Working minutes required: 5 10 15 20 30 45 60 60+

Instructor prep. required: 5 10 15 20 30 45 60 60+

Graphs/charts included: 1. Yes 2. No 3. Other illustrations

Material is sequenced: 1. Yes 2. No Answers are required: 1. Yes 2. No

Author's Evaluation Status: 1. still in formative stages 6. appraised by intended audience in recommended setting
 2. complete but no evaluation 7. tested by cognitive learning achieved in recommended setting
 3. appraised by stat. teachers &/or education experts at our institution 8. tested for effective results achieved in recommended setting
 4. appraised as in 3 outside our institution 9. (if evaluated) results available upon request
 5. appraised by students (non-classroom)

If evaluated, overall results can be summarized as:
 10. Poor 11. Fair 12. Good 13. Excellent 14. Outstanding

Instructional Setting: 1. self-instruction 2. group instruction 3. PSI 4. audio-tutorial

Descriptors for A-V (media) only: 35MM SLIDES: No: _____ 1. color 2. b/w 35 MM FILMSTRIP: No. frames: _____ 3. color 4. b/w
 AUDIOTAPE: running time: _____ size of tape: _____ 5. cassette 6. reel to reel
 VIDEOTAPE: running time: _____ size of tape: _____ 7. cassette 8. reel to reel 9. color 10. b/w
 FILM: running time: _____ 11. super 8 12. 16MM 13. 8MM
 SUPER 8 FILMLOOP: 14. color 15. b/w
 OVERHEAD TRANSPARENCIES: No: _____ 16. diazo 17. thermofax 18. other: _____
 19. color 20. b/w 21. gates 22. overlays

20. DEVICES describe: _____
 21. WALL CHARTS No: _____
 22. BOARD GAME 23. SIMULATION GAME 24. PICTURE SERIES 25. OTHER MEDIA describe: _____

26. designed to carry entire instructional message 27. designed to supplement lecture

Availability and access: 1. not available Distributor: _____
 2. available for free Address: _____
 3. available for loan for \$ _____
 4. available for duplication for \$ _____
 5. available for preview for \$ _____
 6. available for purchase for \$ _____

Ordering information: _____ ZIP _____

OBJECTIVES:

ABSTRACT:

APPRAISAL RESULTS

Appraiser Category: 1. student 2. instructor

Statistics audience(s) for which this material is appropriate:

- | | | |
|------------------------|---------------------|---------------------|
| 1. General | 5. Education | 9. Sociology |
| 2. Biological sciences | 6. Natural sciences | 10. Engineering |
| 3. Business | 7. Psychology | 11. Health sciences |
| 4. Economics | 8. Social sciences | 12. Other _____ |

Ratings (1 = Poor, 2 = Fair, 3 = Good, 4 = Above average, 5 = Excellent, N = No opinion)

Content

- | | | | | | | |
|---------------------------------|---|---|---|---|---|---|
| a. up-to-date | 1 | 2 | 3 | 4 | 5 | N |
| b. accurate | 1 | 2 | 3 | 4 | 5 | N |
| c. visuals accurate | 1 | 2 | 3 | 4 | 5 | N |
| d. review of important concepts | 1 | 2 | 3 | 4 | 5 | N |
| e. organization | 1 | 2 | 3 | 4 | 5 | N |
| f. useful for intended audience | 1 | 2 | 3 | 4 | 5 | N |
| g. overall appraisal of content | 1 | 2 | 3 | 4 | 5 | N |

Educational Design

- | | | | | | | |
|---|---|---|---|---|---|---|
| a. clarity of objectives | 1 | 2 | 3 | 4 | 5 | N |
| b. agreement between objectives and content | 1 | 2 | 3 | 4 | 5 | N |
| c. tests consistent with objectives | 1 | 2 | 3 | 4 | 5 | N |
| d. interest | 1 | 2 | 3 | 4 | 5 | N |
| e. appropriateness of length | 1 | 2 | 3 | 4 | 5 | N |
| f. study guide organization | 1 | 2 | 3 | 4 | 5 | N |
| g. overall appraisal of educational design | 1 | 2 | 3 | 4 | 5 | N |

Technical Appraisal

- | | | | | | | |
|--------------------------------|---|---|---|---|---|---|
| a. appropriate pacing | 1 | 2 | 3 | 4 | 5 | N |
| b. sound | 1 | 2 | 3 | 4 | 5 | N |
| c. narration | 1 | 2 | 3 | 4 | 5 | N |
| d. clarity of visualization | 1 | 2 | 3 | 4 | 5 | N |
| e. quality of art work | 1 | 2 | 3 | 4 | 5 | N |
| f. overall technical appraisal | 1 | 2 | 3 | 4 | 5 | N |

Overall

- | | | | | | | |
|---------------------------------|---------|--------|---|---|---|---|
| a. overall quality | 1 | 2 | 3 | 4 | 5 | N |
| b. Would you use this material? | 1 = Yes | 2 = No | | | | |

RESOURCE CLASSIFICATION FORM FOR MEDIATED (A-V) INSTRUCTIONAL MATERIALS IN THE UNH RESOURCE SYSTEM

Resource # XX
Date 6/7/78

Author(s): David G. Kleinbaum, Anna Kleinbaum
 Address of Primary Author: Dept. Biostatistics, School Public Health, UNC, Chapel Hill, N.C. 27514
 Title: Computing Binomial Probabilities
 Copyright: ☒ 1. Yes ☐ 2. No ☐ 3. Pending
 Primary Key Term: Binomial Distribution Secondary Key Term: Discrete Probability
 Other Key Terms: Binomial tables, 0-1 Variable, Distribution

Resource Description: 1. Article, monograph ☒ 9. Audio-visual (media) ▶ SEE SPECIAL DESCRIPTORS BELOW
 2. Programmed learning ☐ 10. Data base ☒ 17. Objectives
 3. Cases ☐ 11. Summary discussion ☒ 18. Recommendations for use
 4. Short problem ☐ 12. Formulas summary ☒ 19. Practice or review questions
 5. Longer problem ☐ 13. Tests ☒ 20. Guide or outline
 6. Books/chapters ☐ 14. Explanation ☒ 21. References
 7. Handouts ☐ 15. Self-instructional package ☒ 22. Part of a series #units: 3
 8. Computer programs ☐ 16. Pretest
 Name series: Distributions Series

Resource Type: 1. Background ☒ 4. Comprehension
 2. Review material ☒ 5. Application or analysis
 3. Computation ☐ 6. Introduction of concepts
 Prerequisites: 1. None ☒ 3. Calculus
 2. Non-calculus ☐ 4. Computer knowledge
 5. Statistics SPECIFY: Basic probability concept & random variable + distribution

Area of application: 1. General ☒ 5. Education
 2. Biological Sciences ☒ 6. Natural Sciences
 3. Business ☐ 7. Psychology
 4. Economics ☐ 8. Social Sciences
 9. Sociology
 10. Engineering
 11. Health Sciences
 12. Other: _____

Difficulty level: Least ◀ 0 ☒ 1 2 3 4 5 6 7 8 9 ▶ Most

Working minutes required: 5 10 15 20 30 45 ☒ 60 60+

Instructor prep. required: 5 10 15 20 ☒ 30 45 60 60+

Graphs/charts included: 1. Yes 2. No ☒ 3. Other illustrations

Material is sequenced: ☒ 1. Yes ☐ 2. No Answers are required: ☒ 1. Yes ☐ 2. No

Author's Evaluation Report: 1. still in formative stages
 2. complete but no evaluation
 3. appraised by stat. teachers &/or education experts at our institution
 4. appraised as in 3 outside our institution
 5. appraised by students (non-classroom)
 6. appraised by intended audience in recommended setting
 7. tested by cognitive learning achieved in recommended setting
 8. tested for effective results achieved in recommended setting
 9. (if evaluated) results available upon request

If evaluated, overall results can be summarized as:
 10. Poor 11. Fair 12. Good 13. Excellent ☒ 14. Outstanding

Instructional Setting: ☒ 1. self-instruction ☒ 2. group instruction ☒ 3. PSI 4. audio-tutorial

Descriptors for A-V (media) only: 35MM SLIDES: No: 80 ☒ 1. color 2. b/w 35 MM FILMSTRIP: No. frames: _____ 3. color 4. b/w
 AUDIOTAPE: running time: _____ size of tape: ☒ 5. cassette 6. reel to reel
 VIDEOTAPE: running time: _____ size of tape: _____ 7. cassette 8. reel to reel 9. color 10. b/w
 FILM: running time: _____ 11. super 8 12. 16MM 13. 8MM
 SUPER 8 FILMLOOP: 14. color 15. b/w
 OVERHEAD TRANSPARENCIES: No: _____ 16. diazo 17. thermofax 18. other: _____
 19. color 20. b/w 21. gates 22. overlays

20. DEVICES describe: _____
 21. WALL CHARTS No: _____
 22. BOARD GAME 23. SIMULATION GAME 24. PICTURE SERIES 25. OTHER MEDIA describe: _____

☒ 26. designed to carry entire instructional message ☐ 27. designed to supplement lecture

Availability and access:

1. not available
☒ 2. available for free
☒ 3. available for loan for \$?
☒ 4. available for duplication for \$?
☒ 5. available for preview for \$?
☒ 6. available for purchase for \$?

Distributor: Health Sciences Consortium
 Address: 200 Eastowne Drive
Chapel Hill, N.C. 27514 ZIP
 Ordering information: (Send for catalog)

TO BE TRANSCRIBED FROM EXHIBIT 1

OBJECTIVES: Upon completion, the learner should be able to apply the procedures and principles in the appropriate sequence to answer questions about binomial variables. Sub-objectives:

1. Identify the 4 conditions necessary for the binomial model to hold.
2. Given a binomial problem, identify the parameters n & p .
3. Given a binomial problem, compute probabilities for $p \leq .5$ using the binomial table.
4. Given a binomial problem, compute probabilities for $p > .5$ using the binomial table.

ABSTRACT: This slide-tape presentation reviews the concepts of random variables and distributions, describes the properties of binomial variables and demonstrates how to use binomial tables to compute probabilities. The program includes several health related examples and a practice problem which is repeated in the guide.

APPRAISAL RESULTS

Appraiser Category:

1. student

2. instructor

Statistics audience(s) for which this material is appropriate:

1. General
2. Biological sciences
3. Business
4. Economics

5. Education
6. Natural sciences
7. Psychology
8. Social sciences

9. Sociology
10. Engineering
11. Health sciences
12. Other _____

Ratings (1 = Poor, 2 = Fair, 3 = Good, 4 = Above average, 5 = Excellent, N = No opinion)

Content

- | | | | | | | |
|---------------------------------|---|---|---|---|---|---|
| a. up-to-date | 1 | 2 | 3 | 4 | 5 | N |
| b. accurate | 1 | 2 | 3 | 4 | 5 | N |
| c. visuals accurate | 1 | 2 | 3 | 4 | 5 | N |
| d. review of important concepts | 1 | 2 | 3 | 4 | 5 | N |
| e. organization | 1 | 2 | 3 | 4 | 5 | N |
| f. useful for intended audience | 1 | 2 | 3 | 4 | 5 | N |
| g. overall appraisal of content | 1 | 2 | 3 | 4 | 5 | N |

Educational Design

- | | | | | | | |
|---|---|---|---|---|---|---|
| a. clarity of objectives | 1 | 2 | 3 | 4 | 5 | N |
| b. agreement between objectives and content | 1 | 2 | 3 | 4 | 5 | N |
| c. tests consistent with objectives | 1 | 2 | 3 | 4 | 5 | N |
| d. Interest | 1 | 2 | 3 | 4 | 5 | N |
| e. appropriateness of length | 1 | 2 | 3 | 4 | 5 | N |
| f. study guide organization | 1 | 2 | 3 | 4 | 5 | N |
| g. overall appraisal of educational design | 1 | 2 | 3 | 4 | 5 | N |

Technical Appraisal

- | | | | | | | |
|--------------------------------|---|---|---|---|---|---|
| a. appropriate pacing | 1 | 2 | 3 | 4 | 5 | N |
| b. sound | 1 | 2 | 3 | 4 | 5 | N |
| c. narration | 1 | 2 | 3 | 4 | 5 | N |
| d. clarity of visualization | 1 | 2 | 3 | 4 | 5 | N |
| e. quality of art work | 1 | 2 | 3 | 4 | 5 | N |
| f. overall technical appraisal | 1 | 2 | 3 | 4 | 5 | N |

Overall

- | | | | | | | |
|---------------------------------|---------|--------|---|---|---|---|
| a. overall quality | 1 | 2 | 3 | 4 | 5 | N |
| b. Would you use this material? | 1 = Yes | 2 = No | | | | |

C. INITIAL SELECTION OF MEDIA (CRITERIA FOR INCLUSION IN RESOURCE SYSTEM)

After a survey report form (Exhibit 1) has been received and information extracted from it to complete the resource classification form (Exhibit 2a), we recommend that consideration be given to exclude or postpone inclusion in the resource system those materials determined through review by UNH staff to have insufficient information provided with regard to most (a subjective decision is required here) of the items on the following checklist (Exhibit 3):

Exhibit 3: CHECKLIST FOR INITIAL INCLUSION IN RESOURCE SYSTEM

- | | | | |
|--|--------------------------|--|--------------------------|
| 1. specific objectives provided | ☐ | 6. abstract given | ☐ |
| 2. intended audience specified | ☐ | 7. key content descriptors given | ☐ |
| 3. medium (media) specified | ☐ | 8. available for loan, rental, duplication or purchase | ☐ |
| 4. running (viewing) time/
slides/# pages/etc.
specified | ☐ | 9. distributor and price given | ☐ |
| 5. length reasonable | ☐ | 10. author(s) given | ☐ |

For those materials found to be inadequate from the checklist.

D. OBTAINING MEDIA MATERIALS

Up to this point, recommendations have been made regarding the collection of information about AV instructional materials but not regarding the collection of the materials themselves, the latter being a considerably different proposition for AV materials in comparison to print materials. Whereas making a Xerox copy of print materials is a relatively inexpensive undertaking both in terms of time and cost, the opposite is true for AV materials. For example, Wiley's new films on statistical inference sell for over \$200 each and therefore it is unlikely that they would be made available for free to a UNH collection house. It is conceivable, however, that commercial AV publishers would be willing to donate such materials in the hope that exposure and availability in the resource system will increase their use and/or purchase. Nevertheless, persons who have developed materials that are not commercially backed are not as likely to be in a position to donate the time and cost of duplication.

Thus, it appears that an attempt at collection of AV materials would be costly proposition in that the UNH project would be expected to come up with funds to cover the cost of duplication by developers or publishers. Having a large collection of AV materials available from a single resource system might, on the other hand, have considerable effect on increasing the use of such materials nationwide. Moreover, maintaining such a collection would help make evaluation efforts more tractable, although evaluation could be accomplished by obtaining materials on short term loan from their developers/publishers. We recommend, at this point, the latter approach (i.e. loan) because finding sufficient funds would appear difficult and because a certain proportion of materials, once evaluated, may be found not worth their cost.

E. EVALUATION OF MEDIA

It is strongly recommended that some form of evaluation of AV resource materials be carried out. This section begins with the reasons for this recommendation, after which some general considerations regarding format are discussed. Thereafter will follow recommendations for the evaluation procedure for the UNH project, which will include suggested appraisal forms as well as a discussion of experimental design.

1. Justification of Need to Evaluate. Evaluation of audio-visual materials, as well as other materials, is an important component of any resource system for several reasons:

- a. It assists students and/or instructors in making their specific selections.
- b. Evaluation information fosters usage of the system. The experience of the Health Sciences Consortium, a distributor of self-instructional materials, shows that the usage of a resource system is proportional to the information about the quality of the materials that is provided by the system. Materials with good evaluations and/or which have provided good experiences for users tend to be used more, and in fact use of the entire system will be increased as the quality or accuracy of information about the quality of the materials is increased.
- c. Audio-visual materials, in particular, are of relatively high cost for purchase, rent and/or duplication and therefore prospective users need more information before investing in them.
- d. If evaluation is made an ongoing process, materials of inferior quality, unused materials and out-of-date materials can be weeded out, thus saving on purchase, storage and duplication and keeping quality high.
- e. If a distribution system is an eventual goal of the project or of the ASA, then evaluation is mandatory for such a system to be cost-effective.

2. General Considerations of Evaluation Format. There are several procedural aspects to be considered for determining the particular format of evaluation to be used. These include the following:

- a. geographical scope - local, regional, national, international
- b. extent of evaluator(s) relationship to author - faculty or students at same university, volunteer faculty or students from different university, randomly selected faculty and/or students.
- c. student-based and/or faculty-based
- d. if faculty-based, what kind - statistics teachers, statistics researchers, educational specialists
- e. if student-based, type of measurement - appraisal (also called critique or review), measurement of cognitive-learning achieved, or measurement of attitudinal effects
- f. if student-based, will setting be realistic (i.e. for a program designed for classroom use, will the evaluation be done in a classroom or non-classroom situation and will it be at the appropriate point in the course)

- g. nature of experimental design - use of randomly assigned treatment and/or control groups of evaluation, volunteer evaluation, arbitrarily (at convenience of author or experimenter), selected groups of evaluation
- h. open-ended vs. closed-ended vs. mixture type of information gathered
- i. clearly stated objectives of the evaluation and extent of congruency between objectives of evaluation and objectives of the material itself
- j. time-frame for evaluation

3. UNH Evaluation Procedure for Media. An elaborate evaluation procedure which includes all alternatives of the above list of characteristics is undoubtedly beyond the scope of the UNH project. In fact, the time and expense required to carry out a large-scale (experimentally designed) study is not likely to result in significant increases in the effective use of AV materials over what can be accomplished by an evaluation of smaller scope, but rather would serve to help answer more general educational research questions about the effectiveness of AV materials.

Thus, it is recommended here that, as far as the UNH project is concerned, evaluation be carried out with a more restricted scope. The purpose of the evaluation is to obtain just enough information about the quality of AV materials currently available:

- a. to provide some assistance to instructors for their selection of materials
- b. to foster (indirectly) through the information provided in evaluation the use of the resource system
- c. to provide a realistic first appraisal of the general quality of current AV materials
- d. over the long run, to weed out grossly inappropriate inaccurate and out-of-date materials
- e. to aid in revision if it is later undertaken

The evaluation procedure recommended could be carried out in three stages beginning with a relatively regional faculty appraisal (1 year) using both statistics teachers and educational specialists who are convenient for the project (i.e. project related staff and some outside consultants). We see two alternatives for the second stage, one being more elaborate and costly than the other. The costly option would involve both appraisal by statistics teachers (a decision will need to be made

whether to ask for volunteers or carefully to select a national spectrum of potential users of the system) and field trial (performance based) test a sample of the intended audience using cognitive learning and affective measurement scales. The less costly option would involve only the appraisal of materials by statistics teacher volunteers. Both first stage and second-stage evaluations may be accomplished on a small scale at summer workshops for faculty and, for the costly second-stage option, during summer sessions (See Section III). The results of both stages could be easily summarized as part of the resource classification information on each material evaluated (See Exhibit 2a).

The third stage of evaluation would be an ongoing evaluation by statistics teachers who use the resource system to identify AV materials of interest. Such persons could be asked to fill out an appraisal form (to be discussed in the next section) for each AV material that they review for their own teaching purposes and the resulting responses could be fed into the computer to revise the summary evaluation information previously obtained.

4. Forms for Media Evaluation. Exhibit 4 provides a form for use in the appraisal evaluation (first and second stages) to be carried out in each stage. This form has been distilled from several different forms found in the educational media literature and also from forms devised and tried out by these authors locally.

Measurement of cognitive learning at the second-stage would require the administration to students of post-tests designed to test the specific behavioral objectives of the materials. For those materials in group-paced and/or self-instructional modular form, this will be no problem since post-tests may be expected to be components of the module or program. For those materials not containing post-tests, such tests will have to be developed from questions retrieved through the diagnostic system. The questions must be easily gradable (e.g. multiple choice), should in most cases test problem-solving skills, and the results should be easily adaptable for storage in the computer. Although such tests will not be validated, they should be sufficient for our purposes.

Affective measurement evaluation can be of two types. First, measurement can be made of a student's general attitude towards statistics (See Exhibit 5 for a questionnaire designed and used here at UNC) in terms of such dimensions as confidence, interest in statistics and value of statistics. Such an attitude evaluation yields little as a result of the use of a single audio-visual package because of the short time period involved. However, for evaluation

APPRAISAL OF MEDIATED (A-V) INSTRUCTIONAL MATERIALS
FOR THE UNH RESOURCE RETRIEVAL SYSTEM*

The UNH staff is asking all instructors and selected students who view or use mediated instructional materials to complete this appraisal form. Responses will be entered into the resource system to aid other users in selecting their materials. Your name will not be entered. Please respond honestly to all questions. Feel free to include remarks explaining your responses or to give suggestions for revision of the instructional material. Be sure that you have viewed the instructional program in its entirety before completing the form.

Appraiser: _____ 1..student 2..instructor Date: _____

Institution: _____ Address: _____

ZIP

Author of program: _____ Title: _____

Statistics audience(s)
for which this material
is appropriate:

- | | | |
|------------------------|---------------------|---------------------|
| 1..General | 4..Economics | 8..Social sciences |
| 2..Biological sciences | 5..Education | 9..Sociology |
| 3..Business | 6..Natural sciences | 10..Engineering |
| | 7..Psychology | 11..Health Sciences |

Unless otherwise indicated, rate each statement about the material using the following scale:
1..poor 2..fair 3..good 4..above average 5..excellent N..no opinion or not applicable

CONTENT APPRAISAL

- | | 1 | 2 | 3 | 4 | 5 | N | REMARKS |
|---|---|---|---|---|---|---|---------|
| a. the content is up-to-date | | | | | | | _____ |
| b. the content is accurate | | | | | | | _____ |
| c. visuals are accurate | | | | | | | _____ |
| d. important concepts are reviewed adequately | | | | | | | _____ |
| e. content is well organized | | | | | | | _____ |
| f. content is useful for the intended audience | | | | | | | _____ |
| g. THE OVERALL APPRAISAL OF CONTENT QUALITY IS: 1 2 3 4 5 N | | | | | | | |

*The University of New Hampshire has set up this resource system with funds granted by the National Science Foundation.

APPRAISAL OF
EDUCATIONAL DESIGN

- a. objectives are clearly stated 1 2 3 4 5 N _____
- b. there is agreement between objectives and content 1 2 3 4 5 N _____
- c. testing is consistent with the objectives 1 2 3 4 5 N _____
- d. presentation is interesting 1 2 3 4 5 N _____
- e. length is appropriate 1 2 3 4 5 N _____
- f. If a study guide is provided, is it well organized 1 2 3 4 5 N _____
- g. THE OVERALL APPRAISAL OF EDUCATIONAL DESIGN QUALITY IS: 1 2 3 4 5 N

TECHNICAL APPRAISAL

- a. the pacing is appropriate 1 2 3 4 5 N _____
- b. the sound is clear 1 2 3 4 5 N _____
- c. The narration is well done 1 2 3 4 5 N _____
- d. the visualization of the material is clear 1 2 3 4 5 N _____
- e. art work is of good quality 1 2 3 4 5 N _____
- f. THE OVERALL APPRAISAL OF TECHNICAL QUALITY IS: 1 2 3 4 5 N

OVERALL APPRAISAL

- a. Overall, how would you rate the quality of this program? 1 2 3 4 5 N
- b. Would you use this material to teach this subject? 1..Yes 2..No

PLEASE FEEL FREE TO ADD ANY OTHER COMMENTS, ESPECIALLY THOSE THAT WOULD SPECIFICALLY AID IN REVISION OF THIS PROGRAM. THANK YOU FOR YOUR COOPERATION.

MAIL TO: Dr. George Miaoulis, University of New Hampshire Office of Academic Computing, 304 McConnell Hall, Durham, New Hampshire, 03824.

CENTER _____
COURSE NO. _____
SECTION _____
TIME _____

I.D. #

EXHIBIT 5

24

First three letters of mother's first name	First three letters of father's first name	Mo. of birth	Day of birth
---	---	--------------	--------------

ATTITUDE QUESTIONNAIRE FOR INTRODUCTORY (BIO)STATISTICS COURSES

This questionnaire attempts to find out your feelings about taking an introductory statistics course.

Please answer the following questions as honestly as you can.

To ensure anonymity of your responses, your name has not been requested, but rather we ask that you put in the upper right hand corner of the page an ID Code which you will always know but which no one else should know.

Circle the appropriate number on the scale for each question below:

Example: How useless/useful do you find orientation meetings?

useless = 1 (2) 3 4 5 6 7 = useful

- How much confidence/lack of confidence do you have in your mathematical aptitude and ability?
no confidence = 1 2 3 4 5 6 7 = lot of confidence
- Do you feel that professional statistical advice is needed/is not needed for most applied research activities?
statistical advice = 1 2 3 4 5 6 7 = statistical advice
never needed always needed
- Do you enjoy/dislike discussing or listening to discussions of statistical ideas, techniques or applications?
strongly dislike = 1 2 3 4 5 6 7 = enjoy a great deal
- Do you feel that a skilled person can use statistics to prove almost anything?
never = 1 2 3 4 5 6 7 = always
- Do you plan to take a more advanced course in statistics?
definitely no = 1 2 3 4 5 6 7 = definitely yes
- Do you wish/not wish to work on statistical problems related to studies in your own field?
never = 1 2 3 4 5 6 7 = as much as possible
- How much difficulty/ease do you have understanding mathematical terminology or jargon?
find jargon = 1 2 3 4 5 6 7 = find jargon
very difficult very easy
- Do you feel that professional statistical advice is needed/is not needed for studies in your own field?
statistical advice = 1 2 3 4 5 6 7 = statistical advice
never needed always needed
- Would you volunteer/not volunteer to spend extra time tutoring or working with other students in statistics or its applications?
definitely wouldn't = 1 2 3 4 5 6 7 = definitely would
volunteer volunteer
- Do you feel that statistics is useful/useless in applied research activities?
quite useless = 1 2 3 4 5 6 7 = very useful
- Would you attend/not attend seminars given by good speakers or well known authorities on the applications of statistics to a subject of your own interest?
definitely not attend = 1 2 3 4 5 6 7 = definitely attend

12. How much difficulty/ease do you have understanding mathematical concepts?
 mathematical concepts very difficult = 1 2 3 4 5 6 7 = mathematical concepts very easy
13. How shaky/strong do you think your basic mathematical foundation is?
 very shaky = 1 2 3 4 5 6 7 = very strong
14. How boring/interesting do you find mathematical or statistical topics?
 very boring = 1 2 3 4 5 6 7 = very interesting
15. Do you feel that professional statisticians are usually more biased/more objective than professional scientists in other fields?
 much more biased = 1 2 3 4 5 6 7 = much more objective
16. How often in the course of a research activity in your field or related fields do you think statistical questions arise?
 never = 1 2 3 4 5 6 7 = throughout
17. How much confidence/lack of confidence do you have in being able to converse with a statistician about applying statistics to a problem in your field?
 no confidence = 1 2 3 4 5 6 7 = lot of confidence
18. Do you enjoy/dislike learning or using scientific and technical language?
 strongly dislike = 1 2 3 4 5 6 7 = enjoy a great deal
19. How much confidence/lack of confidence do you have in your ability to learn to use the computer?
 no confidence = 1 2 3 4 5 6 7 = lot of confidence
20. Would you be interested/not interested in collaborating with a professional statistician on an application of statistics to a problem of mutual interest?
 not interested at all = 1 2 3 4 5 6 7 = very interested
21. How much statistical training do you feel is required for proper analysis of most research activities?
 no training needed, just common sense = 1 2 3 4 5 6 7 = highly advanced, several courses
22. Do you feel that statistics is useful/useless in your own field?
 quite useless = 1 2 3 4 5 6 7 = very useful
23. How much confidence/lack of confidence do you have in your ability to master basic statistical analyses?
 no confidence = 1 2 3 4 5 6 7 = lot of confidence
24. Would you encourage/discourage your colleagues in taking this or a similar course?
 strongly discourage = 1 2 3 4 5 6 7 = strongly encourage
25. How much confidence/lack of confidence do you have in your ability to read an introductory statistics text?
 no confidence = 1 2 3 4 5 6 7 = lot of confidence
26. Would you use/not use recommended but non-required books or other materials dealing with statistics?
 would never use = 1 2 3 4 5 6 7 = would use a lot
27. How much confidence/lack of confidence do you have in your ability to find flaws and fallacies in statistical analyses?
 no confidence = 1 2 3 4 5 6 7 = lot of confidence
28. Why are you studying statistics?
 CIRCLE AS MANY OF THESE AS ARE APPLICABLE:
 1 = required
 2 = recommended
 3 = I need it
 4 = I want to know it
 5 = I find it interesting
 6 = other

of a larger instructional system, say a series of AV or other materials that comprise a section of or an entire course or an instructional system, Exhibit 5 can be used to measure basic attitudinal change if used both prior and subsequent to instruction.

The second type of affective measurement, which has been incorporated into the appraisal form (Exhibit 4 above) concerns the immediate attitudes that may be elicited from students or instructors about various characteristics of the material (e.g. was it interesting, too slow, too difficult, etc.).

5. Experimental Design. The nature of the appraisal evaluation recommended above does not call for a careful experimental design involving treatment and control groups with random assignment of students and/or faculty to each. The only requirement is that the appraisal evaluation be carried out in such a way as to ensure that each material be evaluated a reasonable number of times, that each evaluator not have to appraise or test too many materials, and that different kinds of inputs be represented in each part of the process. Furthermore it is desirable to design the review process so that different groups of reviewers be used for different materials.

To achieve this, the following type of design procedure is suggested. Suppose we have k materials for review (appraisal) by n_1 content specialists (e.g. statistics teachers), n_2 educational specialists and n_3 students. Then, the design to be used could attempt to allocate evaluators to materials so that each material is reviewed by at least 3 content specialists (i.e., statistics teachers), tested by at least 2 students and appraised by at least 1 educational specialist. At the same time, no one content specialist or student reviews more than k^* materials apiece, where $k^* \ll k$, but must be determined according to the available number of reviewers.

As an example, suppose we have $k = 20$ materials for review, $n_1 = 8$ content specialists, $n_2 = 1$ students and $n_3 = 2$ educational specialists. Then the evaluation design for content specialists ($k^* = 8$) could look as follows (with similar type of design for students):

M\CS	1	2	3	4	5	6	7	8
1	C	C	C					
2				C	C	C		
3	C						C	C
4		C	C	C				
5					C	C	C	
6	C	C						C
7			C	C	C			
8						C	C	C
9	C	C	C					
10				C	C	C		
11	C						C	C
12		C	C	C				
13					C	C	C	
14	C	C						C
15			C	C	C			
16						C	C	C
17	C	C	C					
18				C	C	C		
19	C						C	C
20		C	C	C				

M = material #
CS = content specialists #

III. SUMMER WORKSHOP GUIDELINES FOR MEDIA

Summer project activities are recommended for both faculty/instructors and for students. The faculty media workshop(s) should precede the summer session courses for students. Faculty workshop(s) would be concerned with general information about the use of AV materials, specific information about statistics materials, display of AV materials, use of the resource system to identify AV materials, appraisal of materials by instructors, and development of materials by faculty interested in designing their own media. Student activities would be centered through the offerings of summer courses which would provide a testing ground for faculty use of the diagnostic and resource system and would provide for student evaluation in terms of both appraisal and cognitive performance.

A. MEDIA WORKSHOP FOR INSTRUCTORS: "Using Media to Help Teach Statistics"

1. Overview. We propose a $2\frac{1}{2}$ day workshop with an optional additional day and a half for faculty interested in developing their own materials. A brochure for this workshop, drafted along the lines of the July 1978 Workshop on the use of computers in teaching statistics, is given in Exhibit 6. The intended audience for this workshop would be:

- a. any interested teacher of introductory statistics and/or
- b. any person involved in the design, production and use of AV materials (e.g. an author in the AV resource system) and/or
- c. any person with a clearly identifiable involvement in statistical education (e.g. participants in the ASA 1975 Modular Study Conference at Belmont).

2. Schedule for Workshop. The proposed workshop schedule is outlined below:

Monday

- A.M.: a. UNH project personnel describe the overall resource and diagnostic system in general and its specific features with regard to AV materials and
- b. Participants are given access to resource system, particularly with regard to retrieval of information about AV materials.
- P.M.: a. Workshop staff (content specialists) give overview of the state of audio-visual development in statistics and of available materials.
- b. Workshop staff (media specialists) present discussion on educational aspects of the use of AV materials, including advantages and

disadvantages of different media and how to select the media and/or materials.

- c. Participants are exposed to a general display of available AV materials in several different media. This would represent essentially a smorgasboard of say 3 or 5 AV materials from each of the following media: transparencies, slides and/or slide-tape, films, and video-tape. These materials with appropriate equipment will be set-up in an adjoining set of rooms in such a way so that a media technologist(s) would be available (floating) to assist the participants in the mechanics of using the equipment and at the same time allow participants informally to peruse as many materials as desired. This session will be continued after dinner if considered necessary by workshop staff.

Tuesday

- A.M.: a. Workshop staff (content specialists) discuss general features and problems associated with appraisal of instructional materials, particular of the AV type.
- b. Workshop staff give out and describe appraisal forms (Exhibit 4) to be used for workshop.
- c. Participants select, in order of preference, from materials available at workshop, those materials they would like to appraise.
- P.M.: a. Workshop staff review preferences given by participants to arrive at final appraisal assignments (with particular attention directed at providing for a reasonable number of appraisals of each material).
- b. Participants appraise media materials selected earlier.

Wednesday

- A.M.: a. Participants and staff jointly review the results of appraisals.
- b. Two 30 minute presentations by persons with experience or ideas on the use of innovative teaching techniques and/or mediated teaching materials. These persons will be selected by project staff from short descriptions of proposed presentations which will be requested for submission with the application for workshop. All descriptions that are received will, nevertheless, be made available to all workshop participants so that other ideas or topics may be explored informally.
- P.M.: a. Wrap-up session - summary and recommendations for future workshops.
- b. Introduction to optional session on development of materials - a discussion by workshop staff of the systems approach to instructional design.

- c. (After dinner) Participants select a topic, write objectives and outline.

Thursday

- A.M.: a. Participants complete objectives and outline.
- b. Participants design their presentations (e.g. if a slide-tape presentation is being designed the final product sought would be a storyboarded version of the visuals and script presented on index cards, where each card represents one slide).
- P.M.: a. Participants complete designs.
- b. (Continues after dinner) Participants (plus workshop staff) appraise each others packages.
- c. Wrap-up session - critique of the session and future recommendations.

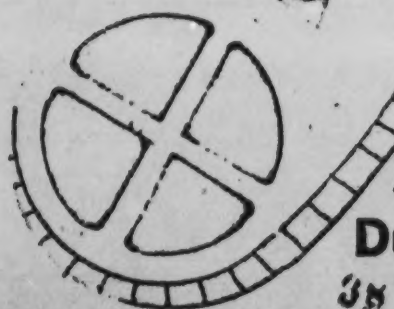
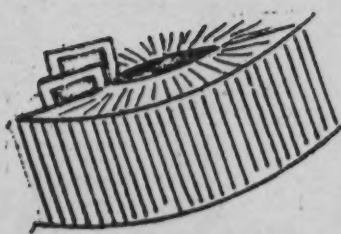
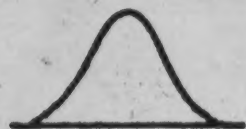
3. Preparation for Workshop. An important and time consuming aspect of the above proposed workshop needing some discussion concerns the choice of those materials to be made available for review at the workshop. It is assumed here that a prerequisite for the workshop is the completion of the update survey of materials, the integration of the information in a computerized resource listing, the weeding out of inappropriate materials according to minimum criteria described earlier, and some kind of preliminary appraisal evaluation by project staff or by consultants. It would of course be desirable that the project be able to obtain at least one copy of each material listed, but due to the costs of AV materials, this is likely to be prohibitive as far as the UNH budget is concerned, unless additional funds are obtained for purchase of materials. In such a case, a selection of materials would have to be made on the basis of preliminary evaluation results, the previous reputation of the author or of the material and/or in the desire to obtain a variety of different media in the system. This, nevertheless, will require some budget allocation or extra funding for purchase, and, if even this is too costly, some more complicated rental or loan arrangement with authors or publishers will have to be made.

As with the selection of materials to be used at the workshop, the choice of materials for display and/or review should also be based on the quality rating of their original evaluation, the reputation of the author or of the material and/or the desire to have a variety of media represented.

B. SUMMER COURSES.

A sufficient test of the use of AV materials within the resource and diagnostic systems during summer courses requires that all instructors involved be strongly encouraged "in advance" of their summer participation to use a certain number (e.g. k^*) of AV materials in their courses. The choice of which materials to use, of course, should not be forced on them, but rather should be made from use of the resource system listing and from actual review of the materials if necessary. Allowance should also be made for the instructor not to use any AV material that is not congruent with his/her objectives or if he is skeptical of their use and/or quality. In fact, if no instructor chooses to use any AV material, despite the availability of the resource system, this result in itself will be noteworthy and informative. Nevertheless, sufficient experience with the system will be achieved if enough available AV materials are of good quality, and if, in addition, some summer faculty are drawn from those participating in a faculty workshop of the type described above which is offered prior to the summer session, and/or the summer faculty is chosen to include persons who are interested in and comfortable with AV materials.

Assuming then, that summer sessions will involve the use of AV materials in actual courses, instructors would then be able to report their experience in using the resource system to select materials and to appraise the materials themselves as well as their use in a classroom situation. Furthermore, the students could also serve as appraisers and in addition, the actual effect of the use of AV materials both with regard to cognitive learning (e.g. post-tests and final exams) and with regard to attitudes (toward the course and towards statistics) can also be measured.



**WORKSHOP
FOR TEACHERS**

**USING
Media
TO
HELP
TEACH**

**STATISTICS
JULY 9-12
1979**

**University of
New Hampshire
Office of
Academic Computing
Durham, N. H.**

OVERVIEW OF THE MEDIA WORKSHOP

This workshop for statistics teachers has three main sections. First, participants will be given an overview of the instructional media available in statistics, will learn how to use these materials and will try out various materials using different media. Second, participants will review and appraise some of the available materials. The appraisals will be entered in the resource system to help others in selecting effective media. The third and optional section of the workshop is aimed at the development of new mediated materials. Each participant will actually design an instructional media program.

WHO SHOULD ATTEND?

Teachers of introductory statistics who want to improve their teaching by using media. Others who are involved in statistics education, for example, those in curriculum, resource system or media design and those who will be teaching University of New Hampshire statistics summer sessions.

BEFORE COMING:

Try out some audio-visual materials in your classes.

EXAMPLES OF MEDIA PRESENTATIONS TO BE VIEWED

Wiley's films on statistical inference, Kleinbaums' slide-tape presentations on probability distributions, Lansford's transparencies on introductory and second level statistics topics, and Zahn's videotapes on discriminant analysis.

PARTICIPANT PRESENTATIONS (OPTIONAL)

Workshop participants with experience or ideas concerning the use of innovative teaching techniques and/or mediated teaching materials may submit a proposal for a 30 minute presentation. Please submit your proposal no later than May 1 to Jerry Warren, University of New Hampshire Office of Academic Computing, 304 McConnell Hall, Durham, NH, 03824.

The proposal should consist of a short description (20 lines or less) of the proposed presentation. All descriptions submitted will be made available to those attending, regardless of whether the proposals are selected for formal presentation. In this way, participants will be aware of other experiences and ideas. Although only two proposals can be scheduled for formal presentation, some other topics may be explored on an informal basis as interests dictate.

Those who developed media materials may be asked to send them for appraisal; these materials may also be selected to be part of the workshop appraisal sessions. Selections will be announced by June 1.

The University of New Hampshire is an equal opportunity, affirmative action, educational institution.

USING MEDIA TO HELP TEACH STATISTICS

JULY 9-12

TENTATIVE WORKSHOP SCHEDULE

All sessions will meet in McConnell Hall on the campus of the University of New Hampshire, Durham, NH. University dining halls and Durham restaurants will be open for participants to purchase meals.

OVERVIEW SESSIONS

Monday, July 9, 1979

8:30-9 am	Introduction and welcome: overview of activities of the workshop
9-10 am.	Description of resource system, how to use it and how audio-visuals fit in to it
10-12 noon	Hands-on experience in using the resource system, especially to find audio-visuals
12-1:30 pm	Lunch on your own
1:30-2:30 pm	Overview of the state of audio-visual development in statistics and of the available materials
2:30-4 pm	Presentation on appropriate use of media materials, including pros and cons of different media
4-5 pm	Display session: participants try out a smorgasbord of available materials and equipment
5-7 pm	Dinner on your own
7-10 pm	Continuation of display and tryout of materials

APPRAISAL SESSIONS

Tuesday, July 10

9-10:30 am	Presentation: how to appraise materials, examples of materials appraised, introduction to appraisal forms
10:30-12 noon	Participants select in order of preference from materials available at workshop those materials they wish to review
12-1:30 pm	Lunch on your own; staff matches media with participants
1:30-5 pm	Participants appraise media using evaluation forms
5-7 pm	Dinner on your own
7-10 pm	Continuation of appraisal if necessary

Wednesday, July 11

9-10:30 am	Discussion of appraisal results
10:30-12 noon	Two presentations selected from participants' proposals, discussion
12-1:30 pm	Lunch on your own
1:30-2:30 pm	Summary and recommendations for future workshops

(Completion of main phase of workshop)

OPTIONAL MEDIA DEVELOPMENT SESSIONS

3:30-5 pm	Discussion of the systems approach to instructional design, principles of design
5-7 pm	Dinner on your own
7-8 pm	Participants select a topic
8-10 pm	Participants write objectives and outline

Thursday, July 12

9-12 am	Participants design their presentations
12-1:30 pm	Lunch on your own
1:30-5 pm	Continuation
5-7 pm	Dinner on your own
7-9 pm	Appraisal of each other's design
9-10 pm	Critique of materials development sessions

WORKSHOP STAFF

David G. Kleinbaum is an associate professor in the Department of Biostatistics at the University of North Carolina. He is a highly regarded statistics teacher and has actively promoted the use of mediated materials in statistics teaching. The author of Applied Regression Analysis and Other Multivariable Methods, he has also developed mediated instructional materials and contributed to the ASA collection of information on existing media materials.

Anna Kleinbaum is an instructional developer and communications designer from Chapel Hill, NC with wide experience in educational design, appraisal, production and design training. She has developed numerous mediated programs in statistics and served as consultant to the ASA Committee on A-V Instructional Materials.

George Miaoulis is an associate professor in the College of Business and Administration at Wright State University. He is principal investigator for all activities relating to the Resource System of UNH's NSF sponsored project "Diagnostic and Instructional Services for College Students of Statistics."

ENROLLMENT OPTIONS

Participants who enroll in the core sessions, 9 am Monday through 2:30 Wednesday, may also enroll in the optional media development sessions, 3:30 Wednesday through 10 pm Thursday.

WORKSHOP REGISTRATION AND CHARGES

Registration fee: \$10 (To register, complete and return the form at top right.)

2 & 1/2 day workshop fee: \$100 Optional workshop fee: \$40

REGISTRATION FOR UNIVERSITY LODGING

Overnight lodging in a University residence hall is available for workshop participants and their spouses. Single rooms are \$7.00 per person per night. Double occupancy is \$5.50 per person per night. Please be sure to specify the type of accommodations you desire and the dates that you require lodging.

Complete the application at the bottom right and return it, with a nonrefundable \$5 deposit, to the Summer Residence Office, 7 Stoke Hall, University of New Hampshire. Your deposit will be credited to your housing bill.

USING MEDIA TO HELP TEACH STATISTICS
UNH CREF 5096 JULY, 1979

- ☒ MONDAY-WEDNESDAY (A.M.), JULY 9-11, WORKSHOP \$100
☐ WEDNESDAY (P.M.)-THURSDAY, JULY 11-12,
OPTIONAL DEVELOPMENT WORKSHOP \$ 40
☒ REGISTRATION FEE \$ 10

NAME _____ SOCIAL SECURITY NO. _____

MAILING ADDRESS _____ ZIP CODE _____

YOUR ORGANIZATION'S NAME AND ADDRESS _____

HOME TELEPHONE NUMBER _____ BUSINESS TELEPHONE NUMBER _____

Enclosed is my check, made payable to the University of New Hampshire,
for \$ _____.

Or charge \$ _____ to my Master Charge or Visa account.

CARDHOLDER'S AUTHORIZING SIGNATURE _____ DATE _____

MASTER CHARGE ACCOUNT, INTERBANK NUMBER, CARD EXPIRATION _____

VISA ACCOUNT NUMBER AND CARD EXPIRATION DATE _____

Return to: UNH Division of Continuing Education, 6 Garrison Avenue, Durham,
New Hampshire 03824. SUGGESTED DEADLINE, JUNE 15, 1979

APPLICATION FOR UNIVERSITY LODGING 1979

I have registered for the UNH summer workshop on "Using Media to Help
Teach Statistics." I would like to reserve the following accommodations:

- ☐ Single Occupancy: \$7.00 per night per person.
☐ Double Occupancy: \$5.50 per night per person.
Roommate preference _____
- ☐ Sunday, July 8, 1979. ☐ Wednesday, July 11, 1979.
☐ Monday, July 9, 1979. ☐ Thursday, July 12, 1979.
☐ Tuesday, July 10, 1979. ☐ Other (specify): _____

LAST NAME, FIRST NAME _____ SEX _____ AGE _____

MAILING ADDRESS _____ ZIP CODE _____

TELEPHONE NUMBER _____ SOCIAL SECURITY NUMBER _____

Return to: UNH Summer Residence Office, 7 Stoke Hall, Durham, NH 03824.
Please submit a nonrefundable \$5 deposit which will be credited to your
housing bill. Please make your check payable to the University of New
Hampshire.

UNIVERSITY OF NEW HAMPSHIRE
Office of Academic Computing
304 McConnell Hall
Durham, New Hampshire 03824

Telephone (603) 862-1685.

USING Media TO HELP TEACH STATISTICS

For Further Information

For more information about the educational aspects of the summer program, contact Jerry Warren, director of academic computing, 304 McConnell Hall, UNH, Durham, NH 03824. Telephone (603) 862-1685.

A P P E N D I X A

SUPPLEMENT TO A BIBLIOGRAPHY ON

AUDIO-VISUAL MATERIALS

FOR STATISTICAL EDUCATION

BY

HARRY O. POSTEN

SUPPLEMENT TO A BIBLIOGRAPHY ON AUDIO-VISUAL MATERIALS
FOR STATISTICAL EDUCATION

by

Harry O. Posten*

The May 1976 issue of The American Statistician (pp. 91-96) includes A Bibliography on Audio-visual Materials for Statistical Education. The present listing is a supplement to that bibliography and follows exactly the same format. All entries are self-explanatory except that all prices indicate the sale price unless followed by the word rental. The author still feels that there is considerable more material "out there" and encourages anyone familiar with additional useful audio-visual material to forward appropriate information.

AUDIO-VISUAL SOURCES FOR MATERIALS LISTED

(ASI)	Advanced Systems, Inc., 1601 Elk Grove Village, Illinois 60007
(ARITHSTAT)	Arithmetical Statistics Audio-Visual, 609 W. 114-th Street, New York, N.Y. 10025
(CARLETON)	CGLM, Carleton College, Northfield, Minnesota 55057
(MATHMAST)	Math-Master, P.O. Box 1911, Big Spring, Texas 79720
(PASCO)	Pasco Scientific, 1933 Republic Avenue, San Leandro, California 94577
(THOMAS)	Thomas Teaching Aids, P.O. Box 405, Cullowhee, North Carolina 28723

TRANSPARENCIES

83. Decisiveness Under Uncertainty (color, \$1.35) ARITHSTAT
84. Data, Description and Inference (color, \$1.35) ARITHSTAT
85. Frequency, Mean, Median and Mode (color, \$1.35) ARITHSTAT
86. Assumed Mean, Frequency Mean, Median Location (color, \$1.35) ARITHSTAT
87. Why Weight (color, \$1.35) ARITHSTAT
88. Laspeyres and Paasche Index (color, \$1.35) ARITHSTAT
89. Census and Destructive Sampling (color, \$1.35) ARITHSTAT
90. Random, Convenience and Systematic (color, \$1.35) ARITHSTAT
91. Mechanical Randomizers and Table (color, \$1.35) ARITHSTAT
92. Runs Test for Randomness (color, \$1.35) ARITHSTAT

*Department of Statistics, University of Connecticut, Storrs, Connecticut 06268

93. Stratified Sampling (color, \$1.35) ARITHSTAT
94. Level of Significance (color, \$1.35) ARITHSTAT
95. Two Types of Error (color, \$1.35) ARITHSTAT
96. Calculating Alpha and Beta (color, \$1.35) ARITHSTAT
97. Skewness and Kurtosis (color, \$1.35) ARITHSTAT
98. Bar Graph and Histogram (color, \$1.35) ARITHSTAT
99. Deceptive Graphs and Frequency Polygon (color, \$1.35) ARITHSTAT
100. Nominal, Ordinal and Interval (color, \$1.35) ARITHSTAT
101. Doing Statistics Homework (color, \$1.35) ARITHSTAT
102. Large-Reservoir Permutations (color, \$1.35) ARITHSTAT
103. Small-Population Permutations (color, \$1.35) ARITHSTAT
104. Permutations with Excluded Group (color, \$1.35) ARITHSTAT
105. Multinomial Combinations (color, \$1.35) ARITHSTAT
106. Binomial Combinations (color, \$1.35) ARITHSTAT
107. P vs. C Distinctions (color, \$1.35) ARITHSTAT
108. Heuristic Chi Square Derivation (color, \$1.35) ARITHSTAT
109. Two-Cell Chi Square Contingency Table (color, \$1.35) ARITHSTAT
110. Row Chi Square Contingency Table (color, \$1.35) ARITHSTAT
111. Full Chi Square Contingency Table (color, \$1.35) ARITHSTAT
112. Degrees of Freedom (color, \$1.35) ARITHSTAT
113. One-Tail and Two-Tail Statements (color, \$1.35) ARITHSTAT
114. Using Chi Square Table (color, \$1.35) ARITHSTAT
115. Group Median and Mean, Q, Ogive (color, \$1.35) ARITHSTAT
116. Mann-Whitney U Test (color, \$1.35) ARITHSTAT
117. Sign and Wilcoxon Tests (color, \$1.35) ARITHSTAT
118. Spearman R (color, \$1.35) ARITHSTAT
119. C, Tau, W, Friedman, H (color, \$1.35) ARITHSTAT
120. Adjectives and Probability (color, \$1.35) ARITHSTAT
121. Risk and Expectation (color, \$1.35) ARITHSTAT
122. Counting (color, \$1.35) ARITHSTAT
123. Conditional Probability (color, \$1.35) ARITHSTAT
124. Casino Craps (color, \$1.35) ARITHSTAT
125. Backgammon (color, \$1.35) ARITHSTAT
126. Trees and Sample Space (color, \$1.35) ARITHSTAT
127. Monte Carlo Simulation (color, \$1.35) ARITHSTAT
128. Disjunctions (color, \$1.35) ARITHSTAT

129. Conjunctions (color, \$1.35) ARITHSTAT
130. Unequal a priori Trees (color, \$1.35) ARITHSTAT
131. Bayes Probabilities (color, \$1.35) ARITHSTAT
132. Sets and Logic (color, \$1.35) ARITHSTAT
133. Sets and Probability Rules (color, \$1.35) ARITHSTAT
134. Confidence Interval for Median (color, \$1.35) ARITHSTAT
135. Pascal's Triangle (color, \$1.35) ARITHSTAT
136. Poisson Probabilities (color, \$1.35) ARITHSTAT
137. Sequential Sampling (color, \$1.35) ARITHSTAT
138. Friedman's Exact Probability Test (color, \$1.35) ARITHSTAT
139. Hypergeometric Probabilities (color, \$1.35) ARITHSTAT
140. Standard Deviation (color, \$1.35) ARITHSTAT
141. Variance of Sums (color, \$1.35) ARITHSTAT
142. Chebychev's Inequality (color, \$1.35) ARITHSTAT
143. Z-Scores (color, \$1.35) ARITHSTAT
144. Correlation (color, \$1.35) ARITHSTAT
145. Pearson's r (color, \$1.35) ARITHSTAT
146. Regression Equation (color, \$1.35) ARITHSTAT
147. Reliability and Validity (color, \$1.35) ARITHSTAT
148. Scattergrams (color, \$1.35) ARITHSTAT
149. Less Useful r's (color, \$1.35) ARITHSTAT
150. Additive and Interactive Variables (color, \$1.35) ARITHSTAT
151. Multiple Regression (color, \$1.35) ARITHSTAT
152. Time Series Analysis (color, \$1.35) ARITHSTAT
153. Moving Average and Seasonal Index (color, \$1.35) ARITHSTAT
154. Spreading and Normal Curve (color, \$1.35) ARITHSTAT
155. Matching Raw Scores and Percentiles (color, \$1.35) ARITHSTAT
156. Using the Normal Curve Table (color, \$1.35) ARITHSTAT
157. Not All Distributions Are Normal (color, \$1.35) ARITHSTAT
158. Occupational and School Testing (color, \$1.35) ARITHSTAT
159. Personnel Decisions (color, \$1.35) ARITHSTAT
160. Algebraic s.d. formulas (color, \$1.35) ARITHSTAT
161. Derivation of Binomial Approximation (color, \$1.35) ARITHSTAT
162. Use of Binomial Approximation (color, \$1.35) ARITHSTAT
163. Statistics, Parameters and N-1 (color, \$1.35) ARITHSTAT
164. Distribution of Sample Means (color, \$1.35) ARITHSTAT

165. Central Limit and Quality Control (color, \$1.35) ARITHSTAT
166. Analysis of Variance (color, \$1.35) ARITHSTAT
167. Analysis of Covariance (color, \$1.35) ARITHSTAT
168. Duncan's Test (color, \$1.35) ARITHSTAT
169. Derivation of t-Test (color, \$1.35) ARITHSTAT
170. Using t-Test and Table (color, \$1.35) ARITHSTAT
171. Useful vs. Significant Differences (color, \$1.35) ARITHSTAT
172. Limitations on Group Inference (color, \$1.35) ARITHSTAT
173. Experiment, Association and Status (color, \$1.35) ARITHSTAT
174. Test Selection by Variable Type (color, \$1.35) ARITHSTAT
175. Best Research Designs (color, \$1.35) ARITHSTAT
176. Lesser Research Designs (color, \$1.35) ARITHSTAT
177. Matrix Multiplication (color, \$1.35) ARITHSTAT
178. Transition Matrices (color, \$1.35) ARITHSTAT
179. Business Decisions (color, \$1.35) ARITHSTAT
180. Two Person Zero Sum Games (color, \$1.35) ARITHSTAT
181. Probability Vectors (color, \$1.35) ARITHSTAT
182. Markov Processes (color, \$1.35) ARITHSTAT
183. Unit Vectors (color, \$1.35) ARITHSTAT
184. Factor Analysis (color, \$1.35) ARITHSTAT
185. BASIC Introduction (color, \$1.35) ARITHSTAT
186. FORTRAN Introduction (color, \$1.35) ARITHSTAT
187. SPSS Introduction (color, \$1.35) ARITHSTAT
188. BASIC Loops (color, \$1.35) ARITHSTAT
189. FORTRAN Loops (color, \$1.35) ARITHSTAT
190. BASIC DIM (color, \$1.35) ARITHSTAT
191. FORTRAN DIMENSION (color, \$1.35) ARITHSTAT
192. BASIC REM (color, \$1.35) ARITHSTAT
193. FORTRAN COMMENT (color, \$1.35) ARITHSTAT
194. FORMAT (color, \$1.35) ARITHSTAT
195. Subroutines (color, \$1.35) ARITHSTAT
196. Probability and Statistics (set of three lesson transparencies and manual, \$21) MATHMAST
197. Probability and Statistics (set of three matching question transparencies and manual, \$9.60) MATHMAST
198. Probability (set of 18 transparencies and manual, \$107.10) MATHMAST

VIDEO TAPES

24. Decisiveness Under Uncertainty (7 min., \$10) ARITHSTAT
25. Data, Description and Inference (7 min., \$10) ARITHSTAT
26. Frequency, Mean, Median and Mode (7 min., \$10) ARITHSTAT
27. Assumed Mean, Frequency Mean, Median Location (7 min., \$10) ARITHSTAT
28. Why Weight (7 min., \$10) ARITHSTAT
29. Laspeyres and Paasche Index (7 min., \$10) ARITHSTAT
30. Census and Destructive Sampling (7 min., \$10) ARITHSTAT
31. Random, Convenience and Systematic (7 min., \$10) ARITHSTAT
32. Mechanical Randomizers and Table (7 min., \$10) ARITHSTAT
33. Runs Test for Randomness (7 min., \$10) ARITHSTAT
34. Stratified Sampling (7 min., \$10) ARITHSTAT
35. Level of Significance (7 min., \$10) ARITHSTAT
36. Two Types of Error (7 min., \$10) ARITHSTAT
37. Calculating Alpha and Beta (7 min., \$10) ARITHSTAT
38. Skewness and Kurtosis (7 min., \$10) ARITHSTAT
39. Bar Graph and Histogram (7 min., \$10) ARITHSTAT
40. Deceptive Graphs and Frequency Polygon (7 min., \$10) ARITHSTAT
41. Nominal, Ordinal and Interval (7 min., \$10) ARITHSTAT
42. Doing Statistics Homework (7 min., \$10) ARITHSTAT
43. Large-Reservoir Permutations (7 min., \$10) ARITHSTAT
44. Small-Population Permutations (7 min., \$10) ARITHSTAT
45. Permutations with Excluded Group (7 min., \$10) ARITHSTAT
46. Multinomial Combinations (7 min., \$10) ARITHSTAT
47. Binomial Combinations (7 min., \$10) ARITHSTAT
48. P vs. C Distinctions (7 min., \$10) ARITHSTAT
49. Heuristic Chi Square Derivation (7 min., \$10) ARITHSTAT
50. Two-Cell Chi Square Contingency Table (7 min., \$10) ARITHSTAT
51. Row Chi Square Contingency Table (7 min., \$10) ARITHSTAT
52. Full Chi Square Contingency Table (7 min., \$10) ARITHSTAT
53. Degrees of Freedom (7 min., \$10) ARITHSTAT
54. One-Tail and Two-Tail Statements (7 min., \$10) ARITHSTAT
55. Using Chi Square Table (7 min., \$10) ARITHSTAT
56. Percentile (7 min., \$10) ARITHSTAT

57. Group Median and Mean, Q, Ogive (7 min., \$10) ARITHSTAT
58. Mann-Whitney U Test (7 min., \$10) ARITHSTAT
59. Sign and Wilcoxon Tests (7 min., \$10) ARITHSTAT
60. Spearman R (7 min., \$10) ARITHSTAT
61. C. Tau, W, Friedman, H (7 min., \$10) ARITHSTAT
62. Adjectives and Probability (7 min., \$10) ARITHSTAT
63. Risk and Expectation (7 min., \$10) ARITHSTAT
64. Counting (7 min., \$10) ARITHSTAT
65. Conditional Probability (7 min., \$10) ARITHSTAT
66. Casino Craps (7 min., \$10) ARITHSTAT
67. Backgammon (7 min., \$10) ARITHSTAT
68. Trees and Sample Space (7 min., \$10) ARITHSTAT
69. Monte Carlo Simulation (7 min., \$10) ARITHSTAT
70. Conjunctions (7 min., \$10) ARITHSTAT
71. Disjunctions (7 min., \$10) ARITHSTAT
72. Unequal a priori Trees (7 min., \$10) ARITHSTAT
73. Bayes Probabilities (7 min., \$10) ARITHSTAT
74. Sets and Logic (7 min., \$10) ARITHSTAT
75. Sets and Probability Rules (7 min., \$10) ARITHSTAT
76. Confidence Interval for the Median (7 min., \$10) ARITHSTAT
77. Pascal's Triangle (7 min., \$10) ARITHSTAT
78. Poisson Probabilities (7 min., \$10) ARITHSTAT
79. Sequential Sampling (7 min., \$10) ARITHSTAT
80. Friedman's Exact Probability Test (7 min., \$10) ARITHSTAT
81. Hypergeometric Probabilities (7 min., \$10) ARITHSTAT
82. Standard Deviation (7 min., \$10) ARITHSTAT
83. Chebychev's Inequality (7 min., \$10) ARITHSTAT
84. Variance of Sums (7 min., \$10) ARITHSTAT
85. Z-Scores (7 min., \$10) ARITHSTAT
86. Correlation (7 min., \$10) ARITHSTAT
87. Pearson's r (7 min., \$10) ARITHSTAT
88. Regression Equation (7 min., \$10) ARITHSTAT
89. Reliability and Validity (7 min., \$10) ARITHSTAT
90. Scattergrams (7 min., \$10) ARITHSTAT
91. Less Useful r's (7 min., \$10) ARITHSTAT
92. Additive and Interactive Variables (7 min., \$10) ARITHSTAT

93. Multiple Regression (7 min., \$10) ARITHSTAT
94. Time Series Analysis (7 min., \$10) ARITHSTAT
95. Moving Average and Seasonal Index (7 min., \$10) ARITHSTAT
96. Spreading and Normal Curve (7 min., \$10) ARITHSTAT
97. Matching Raw Scores and Percentiles (7 min., \$10) ARITHSTAT
98. Using the Normal Curve Table (7 min., \$10) ARITHSTAT
99. Not All Distributions are Normal (7 min., \$10) ARITHSTAT
100. Occupational and School Testing (7 min., \$10) ARITHSTAT
101. Personnel Decisions (7 min., \$10) ARITHSTAT
102. Algebraic s.d. Formulas (7 min., \$10) ARITHSTAT
103. Derivation of Binomial Approximation (7 min., \$10) ARITHSTAT
104. Use of Binomial Approximation (7 min., \$10) ARITHSTAT
105. Statistics, Parameters and N-1 (7 min., \$10) ARITHSTAT
106. Distribution of Sample Means (7 min., \$10) ARITHSTAT
107. Central Limit and Quality Control (7 min., \$10) ARITHSTAT
108. Analysis of Variance (7 min., \$10) ARITHSTAT
109. Analysis of Covariance (7 min., \$10) ARITHSTAT
110. Duncan's Test (7 min., \$10) ARITHSTAT
111. Derivation of t-Test (7 min., \$10) ARITHSTAT
112. Using t-Test and Table (7 min., \$10) ARITHSTAT
113. Useful vs. Significant Differences (7 min., \$10) ARITHSTAT
114. Limitations on Group Inference (7 min., \$10) ARITHSTAT
115. Experiment, Association and Status (7 min., \$10) ARITHSTAT
116. Test Selection by Variable Type (7 min., \$10) ARITHSTAT
117. Best Research Designs (7 min., \$10) ARITHSTAT
118. Lesser Research Designs (7 min., \$10) ARITHSTAT
119. Matrix Multiplication (7 min., \$10) ARITHSTAT
120. Transition Matrices (7 min., \$10) ARITHSTAT
121. Business Decisions (7 min., \$10) ARITHSTAT
122. Two Person Zero Sum Games (7 min., \$10) ARITHSTAT
123. Probability Vectors (7 min., \$10) ARITHSTAT
124. Markov Processes (7 min., \$10) ARITHSTAT
125. Unit Vectors (7 min., \$10) ARITHSTAT
126. Factor Analysis (7 min., \$10) ARITHSTAT
127. BASIC Introduction (7 min., \$10) ARITHSTAT

- 128. FORTRAN Introduction (7 min., \$10) ARITHSTAT
- 129. SPSS Introduction (7 min., \$10) ARITHSTAT
- 130. BASIC Loops (7 min., \$10) ARITHSTAT
- 131. FORTRAN Loops (7 min., \$10) ARITHSTAT
- 132. BASIC DIM (7 min., \$10) ARITHSTAT
- 133. FORTRAN DIMENSION (7 min., \$10) ARITHSTAT
- 134. BASIC REM (7 min., \$10) ARITHSTAT
- 135. FORTRAN COMMENT (7 min., \$10) ARITHSTAT
- 136. FORMAT (7 min., \$10) ARITHSTAT
- 137. Subroutines (7 min., \$10) ARITHSTAT

FILMS

- 133. The Buffon Needle Experiment (4½ min., B&W cartridge, \$20)
CARLETON

FILM COURSES

- 6. Statistics for Management and the Helping Sciences (listed individually as VIDEO-TAPES #24-137) (100 Module series, \$8.75 per lesson, includes related texts and reproducible programmed problem sets) ARITHSTAT
- 7. Introduction to Statistics (8 video-tapes, 3 texts, guides, \$1,800 or \$250 per tape) ASI
- 8. Operations Research (4 video-tapes, text, guide, \$800 or \$200 per tape) ASI

PROBABILITY DEVICES

- 15. Probability and Statistics Lab (coin tossing machine, hexstat, sampling box, 30 dice, numbered cards, spinner, manual, \$28) MATHMAST
- 16. Coin Tossing Machine (\$8) MATHMAST
- 17. Hexstat (\$4.90) MATHMAST
- 18. Electronic Probability Generator - binomial, discrete uniform, discrete exponential (\$495) PASCO
- 19. Divue classroom display demonstrator (demonstration unit, two large 1½" regular dice, two 1½" loaded dice, five 1½" simulated coins, \$28) THOMAS

20. Pair of regular $1\frac{1}{2}$ " dice (\$2.60) THOMAS
21. Pair of loaded $1\frac{1}{2}$ " dice (\$4.00) THOMAS

AUDIO TAPES

6. Complete course in statistics coinciding with transparencies #83-195 (cassette and reproducible exercise booklet, \$5) ARITHSTAT

SLIDES

4. Complete statistics course (100 color slides, 4 audio-tapes, complete scripts and reproducible exercise booklets, \$45) ARITHSTAT
5. The birthday and hat check problems; Regression; scatter plots (36 slides, \$15) CARLETON
6. Normal confidence interval for a mean; survey sample sizes (36 slides, \$15) CARLETON
7. Robustness of Student's t, a Monte Carlo Study (36 slides, \$15) CARLETON
8. Buffon needle problem: Computing pi by Monte Carlo methods (36 slides, \$15) CARLETON

WALL CHARTS

2. Statistics Roadmap for Test Selection by Variable Type. 18"x24", \$7. ARITHSTAT
3. Normal Curve as 100 Countable Circles. 18"x24", \$7. ARITHSTAT
4. Three Group Analysis of Variance. 18"x24", \$7. ARITHSTAT
5. Pascal's Triangle. 18"x24", \$7. ARITHSTAT

A P P E N D I X B

REPORT OF RESULTS

OF SURVEY

FOR MEDIA MATERIALS

IN STATISTICS

BY

David G. Kleinbaum

on behalf of the

Subcommittee on Audio-Visual
Instructional Material in
Statistical Education

The Survey

This report gives the results of a survey undertaken by the ASA Subcommittee on Audio-Visual Material in Statistical Education during March and April, 1975. Letters requesting information on media materials used, developed or in the process of being developed were sent to approximately 190 departments of statistics, biostatistics or mathematics with programs in statistics as listed in the November, 1974 issue of the American Statistician.

Responses were received by 111 departments as of June 1, 1975. These departments are listed in Table 1. Breakdowns of materials reported to be either locally developed or used but developed elsewhere are given in Tables 2 and 3. The remainder of the report gives descriptions of the materials that have been reported, first those unpublished materials which have been locally developed and, second, those materials used but developed elsewhere.

TABLE 1
LIST OF RESPONDENTS
TO MEDIA SURVEY

ALABAMA

Auburn University
L.P. Burton
School of Arts and Sciences
Department of Mathematics

ARKANSAS

University of Arkansas
James E. Dunn
Department of Statistical
Studies

CALIFORNIA

California State University,
Fullerton
D.S. Stoller
Department of Quantitative
Methods

California State University,
Northridge
Max Astracham
Department of Management
Science

Claremont Colleges
Janety Myhre
Department of Mathematics

Loma Linda University
Jan W. Kuzman
Department of Biostatistics &
Epidemiology

Pomona College
Donald Bentley
Department of Mathematics

San Diego State University
David Macky
Department of Mathematics

Stanford University
Ingram Olkin
Department of Statistics

University of California,
Berkeley
E.L. Lehmann
Department of Statistics

University of California,
Los Angeles
Olive Jean Dunn
Department of Biostatistics

University of California,
Los Angeles
Richard Goodman
Graduate School of Management

University of Southern California
Stanley Azen
Department of Community Medicine

COLORADO

University of Colorado
School of Medicine
S.H. Walker
Department of Biometrics

University of Northern Colorado
Samuel R. Houston
Department of Research and
Statistical Methodology

CONNECTICUT

Yale University
Colin White
Department of Epidemiology and
Public Health

DISTRICT OF COLUMBIA

American University
Basil P. Korin
Department of Mathematics & Statistics

Georgetown University
Leonard Chiazze
Department of Community Medicine
& Internatl. Health

George Washington University
Jerome Cornfield
Department of Statistics

FLORIDA

Florida Technological University
Ernest J. Lytle, Jr.
P.N. Somerville
Department of Mathematical
Sciences

University of South Florida
W. Mendenhall
Department of Statistics

Florida State University
Douglas Zahn
Department of Statistics

GEORGIA

Emory University
Elmer C. Hall
Department of Statistics & Biometry

Georgia Institute of Technology
Russel G. Heikea
Department of Industrial and Systems
Engineering

Georgia State University
Bikramjit S. Garcha
Department of Quantitative Methods

ILLINOIS

Northern Illinois University
John Selfridge
Department of Mathematical
Sciences

Sangamon State University
K.G. Janardan
Department of Mathematical
Sciences

University of Illinois
R.A. Wysman
Department of Mathematics

University of Illinois at
Chicago Circle
Stanley L. Sclove
Department of Mathematics

INDIANA

Ball State University
John A. Beekman
Department of Mathematical
Sciences

IOWA

Drake University
Vasanth B. Solomon
Department of Statistics

University of Iowa
Ren Randles
Department of Mathematics

KANSAS

Kansas State University
Arthur Dayton
Department of Statistics &
Statistical Laboratory

KENTUCKY

University of Kentucky
H.E. McKean
Department of Statistics

LOUISIANA

McNeese State University
Anand S. Kattiyar
Department of Mathematical
Science

Tulane University at
New Orleans
Robert E. Serfling
Department of Health Measurement
Sciences

MARYLAND

John Hopkins University
Alan Ross
Department of Biostatistics

John Hopkins University
Zenos Sykes
Department of Population Dynamics

University of Maryland
William P. Schafer
Department of Measurement and Educational
Statistics

University of Maryland
G.L. Young
Department of Mathematics

MASSACHUSETTS

Harvard University
A.P. Dempster, David Oakes,
David Hoaglin
Department of Statistics

Harvard University
Jane Worcester
Department of Biostatistics

University of Massachusetts
David W. Hosmer
Division of Public Health
School of Health Sciences

MICHIGAN

Michigan State University
Raoul Le. Page
Department of Statistics &
Probability

University of Michigan
Thomas J. Schriber
Department of Management Science

University of Michigan
W.A. Ericson
Department of Statistics

University of Michigan
Betty Ullman
Department of Biostatistics

Wayne State University
M. Katz
Department of Mathematics

MINNESOTA

Carlton College
Roger Kirchner
Department of Mathematics

University of Minnesota
Morris L. Eaton
Department of Theoretical Statis-
tics

MISSISSIPPI

Mississippi State University
C.N. Moor
Department of Business Statistics
& Data Processing

Mississippi State University
Ronald R. Hocking
Department of Computer Science
& Statistics

MISSOURI

University of Missouri -
Rolla
Dallas Johnson (for Glen Haddock)
Department of Mathematics

MONTANA

Montana State University
Kenneth J. Tiaht
Department of Statistical Lab.

University of Montana
Howard Reinhardt
Department of Mathematics

NEBRASKA

University of Nebraska
Lincoln
Edwin Halfar
Department of Mathematics

NEW JERSEY

Princeton University
H. Braun
Department of Statistics

Rutgers - The State University
Arthur Cohen
Department of Statistics

NEW MEXICO

New Mexico State University
Gerald S. Rogers, N.S. Urguhart
Department of Mathematical
Sciences

University of New Mexico
L.H. Koopmans
Department of Mathematics &
Statistics

NEW YORK

City University of New York
Baruch College
John I. Griffin
Dean of Graduate Studies

Columbia University
Molly Park
Department of Biostatistics

Cornell University
W.T. Federer
Department of Mathematics

Cornell University
Philip T.M. Carthy
Department of Economics &
Soc. Statistics

Rochester Institute of
Technology
Austin J. Bonis
Department of Statistics

Roswell Park Memorial
Institute
J. Brown
Department of Biostatistics

State University of New York
Binghamton
David L. Hanson
Department of Mathematical
Sciences

NORTH CAROLINA

University of North Carolina
D.G. Kleinbaum
Department of Biostatistics

University of North Carolina
N.L. Johnson
Department of Statistics

N. C. State University
A. Grandage
Statistics

OHIO

Bowling Green State University
Thomas Hern & Cliff Long
Department of Mathematics

Case Western Reserve
University
Judah Rosenblatt
Department of Computer Science, &
Bionetry

Ohio State University
D.R. Whitney
Department of Statistics

University of Akron
Leonard Sweet
Department of Mathematics &
Statistics

University of Cincinnati
C.R. Buncher
Department of Biostatistics &
Epidemiology

Wright State University
Leone Y. Low
Department of Mathematics

Wright State University
Robert Amsden
Department of Admin. Science &
Finance

OKLAHOMA

Oklahoma State University
Leroy Folks
Department of Statistics

University of Oklahoma Health
Science Center
Paul S. Anderson, Jr.
Department of Biostatistics &
Epidemiology

OREGON

Oregon State University
Justus Seely
Roger Petersen
David S. Birkes
Department of Statistics

PENNSYLVANIA

Carnegie - Mellon University
Joseph B. Kadane
Department of Statistics

Temple University
Samuel Kotz
Department of Mathematics

Temple University
Stanley Schor
Department of Biometrics

University of Pennsylvania
Donald F. Morrison
Department of Statistics

University of Pittsburgh
Louis A. Pingel
Department of Educational
Research

University of Pittsburgh
C.C. Li
Department of Biostatistics

RHODE ISLAND

University of Rhode Island
James Heltsche
Department of Experimental
Statistics

SOUTH CAROLINA

Medical University of South
Carolina
J.R. Grant, R.C. Duncan
& M.C. Miller, III
Department of Biometry

University of South Carolina
W.J. Easles
Department of Math/Computer
Science

TENNESSEE

University of Tennessee
H. Alan Lasater
R.A. McLean
Department of Statistics

TEXAS

Texas Tech University
Thomas Boullion
Department of Mathematics

University of Texas
Ron Harrist
Department of Biometry

University of Houston
C. H. Cho
Quantitative Medical Science

UTAH

Brigham Young University
Lee Hendrik, Gary Beus
Department of Statistics

VERMONT

University of Vermont
Leonard J. Tashman
Statistics Program

VIRGINIA

Hollins College
R. Lowell Wine
Department of Statistics

Radford College
R.E. Spaulding
Department of Mathematics &
Statistics

Virginia Commonwealth University
R.C. Sansing
Department of Mathematical
Sciences
William Fellner
Department of Biostatistics

Virginia Polytechnic Institute
and State University
Richard Krutchtotl
Department of Statistics

WASHINGTON

University of Washington
R.A. Kronmal
Department of Biomathematics
Ronald Pyke
Department of Mathematics

WEST VIRGINIA

West Virginia University
Donald F. Butcher
Department of Statistics and
Computer Science

WISCONSIN

University of Wisconsin
R.B. Miller
Department of Statistics
Frank B. Baker
Lab of Exp. Design, Educ.
Sciences

Marquette University
Willard E. Lawrence and Robert Lochner
Mathematics and Statistics

WYOMING

University of Wyoming
T.A. Walther
Department of Statistics

CANADA

University of New Brunswick
P.J. Banerjee
Department of Mathematics

University of Guelph
B.L. Raktoe
Department of Mathematics & Statistics

Queen's University
Donald Watts, Doug Bates
Department of Mathematics

University of Montreal
Dr. Bertaud
Department of Mathematics

University of Montreal
Lucille Roy

McMaster University
Gary Anderson
Department of Clinical Epidemiology
and Biostatistics

University of British Columbia
Fred Wan
Institute of Applied Mathematics

University of Toronto
D. F. Andrews
Mathematics

Table 2

BREAKDOWN OF UNPUBLISHED
LOCALLY DEVELOPED
MEDIA MATERIALS IN STATISTICS
IN THE U.S. AND CANADA *

<u>Type</u>	<u># of materials (units, modules)</u>	<u># of developers</u>
Audio-Tape	3	3
Films	5	5
Film-strips	1	1
Self-instruction and/or PSI	13	11
Slides	11	7
Slide-Tape	11	5
Transparencies	19	15
Video-Tape	8	8
Miscellaneous (Games, Devices, Wallcharts, Computer Material and Other)	7	7

* Based on responses from 111 departments of statistics, biostatistics and mathematics with statistics programs, listed in the November 1974 issue of the American Statistician.

Table 3

BREAKDOWN OF MEDIA MATERIALS IN STATISTICS
USED BUT DEVELOPED ELSEWHERE *

<u>Type</u>	<u># of materials (units, modules)</u>	<u># of users *</u>
Audio-Tape	1	2
Films	8	12
Filmstrips	0	0
Self-Instruction and/or PSI	1	1
Slides	2	2
Slide-Tape	0	0
Transparencies	1	2
Video-Tape	0	0
Miscellaneous (Games, Devices, etc.)	6	6

* Based on responses from 111 departments of statistics, biostatistics and mathematics with statistics programs, listed in the November 1974 issue of the American Statistician.

** More reliable data on the number of users can be obtained from publisher records of sales or rentals.

Description of
Unpublished
Locally Developed
Media Materials
In
Statistics

AUDIO-TAPES - SELF-DEVELOPED

Name: David G. Kleinbaum and Roy Kuebler
 Department: Department of Biostatistics
 College or University: UNC-CH

Title Audio Tapes on Introductory Statistics - The Kleinbaum-Kuebler Tapes
 Statistical Topic(s) covered? all introductory topics

Intended Audience Beginning Statistics students

Are you the author (designer)? Yes X No

Available for distribution to others? Yes X No Other

Publisher or distributor the Authors

Cost of production (if author) Cost of tapes

Purchase Price Cost of duplication and postage

Rental Price

Description Lectures by two instructors in two different statistics courses - unedited

Evaluation experience: Yes No X,

Name: David Oakes
 Department: Statistics
 College or University: Harvard

Title
 Statistical Topic(s) covered? self-paced version of elementary statistics for the social sciences

Intended Audience Third year students

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No Other

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

AUDIO-TAPES - SELF-DEVELOPED

(Name: Richard Goodman
 Department: Graduate School of Management
 College or University: UCLA

Title Managerial Statistics

Statistical Topic(s) covered? _____

Intended Audience Entry level of professional students

Are you the author (designer)? Yes X No _____

Available for distribution to others? Yes _____ No _____ Other Details being work

Publisher or distributor _____ ou

Cost of Production (if author) _____

Purchase Price _____

Rental Price _____ *above is designer (author J. Morgan Jones)

Description _____

Evaluation experience: Yes X No _____, reviewed other tapes and felt coverage was
inappropriate.

Name: _____
 Department: _____
 College or University: _____

Title _____

Statistical Topic(s) covered? _____

Intended Audience _____

Are you the author (designer)? Yes _____ No _____

Available for distribution to others? Yes _____ No _____ Other _____

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes _____ No _____

FILMS & FILMSTRIPS - SELF-DEVELOPED

Name: D. B. Owen
 Department: Department of Statistics
 College or University: SMU

Title Early Development of Techniques in Comparative Experimentation
 Statistical Topic(s) covered? History of statistics and probability

Intended Audience Statisticians, historians, and educated lay audiences
 Are you the author (designer)? Yes No X but developed at SMU
 Available for distribution to others? Yes No X Other
 Publisher or distributor

Cost of production (if author) \$1,012.48 - (not author)
 Purchase Price
 Rental Price
 Description Film of symposium held at SMU in May 1974 - unedited raw tape of conference
 Evaluation experience: Yes No ,

Name: C. & L. Moulton
 Department:
 College or University: Beaver College and Montgomery County Community
College Respectively

Title Numerical Integration - Monte Carlo Methods
 Statistical Topic(s) covered? Use of Monte Carlo techniques to estimate area

Intended Audience
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor Computer Graphics for Learning Meth., Carleton College
Northfield, MN 55052
 Cost of production (if author)
 Purchase Price \$20
 Rental Price
 Description Super 8 film in KODAK cartridge plus write-up
 Evaluation experience: Yes No ,

FILMS & FILMSTRIPS - SELF-DEVELOPED

Name: Richard Nau
 Department: (Roger Kirchner, Project Director)
 College or University: Carleton College

Title The Buffon Needle Experiment
 Statistical Topic(s) covered? Simulation and analysis of solution of a probability experiment

Intended Audience Probability, calculus, computer courses
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor Computer Graphics for Learning Math, Carleton College,
Northfield, Mn. 55052
 Cost of production (if author)
 Purchase Price \$20
 Rental Price
 Description Super 8 film on KODAK cartridge

Evaluation experience: Yes No

Name: Bertrand
 Department: Math
 College or University: University of Montreal

Title Introduction to Statistics and Probability (30 films of 45 minutes)
 Statistical Topic(s) covered?

Intended Audience
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor Centre audio-visual, University de Montreal

Cost of production (if author)
 Purchase Price Approx. \$20 000
 Rental Price \$200

Description

Evaluation experience: Yes No

FILMS & FILMSTRIPS - SELF-DEVELOPED

Name: Raoul LePage
 Department: Statistics and Probability
 College or University: Michigan State University

Title Pascal's Triangle
 Statistical Topic(s) covered? Pascal's triangle as a device for counting the numbers of paths to particular locations on the Galton board. Illustration of law of large numbers using this board

Intended Audience _____

Are you the author (designer)? Yes X No _____

Available for distribution to others? Yes _____ No X Other _____

Publisher or distributor _____

Cost of production (if author) \$200

Purchase Price _____

Rental Price _____

Description 16mm

Evaluation experience: Yes _____ No _____, _____

Name: Dr. C. N. Moore
 Department: Business statistics and Data Processing
 College or University: Mississippi State University

Title Time Series Analysis
 Statistical Topic(s) covered? time series analysis (mostly trend)

Intended Audience Students in business statistics

Are you the author (designer)? Yes X No _____ (Obsolete)

Available for distribution to others? Yes _____ No X Other _____

Publisher or distributor _____

Cost of production (if author) \$1 per frame

Purchase Price _____

Rental Price _____

Description Filmstrip

Evaluation experience: Yes _____ No _____, This was probably a pioneering effort to use visual aid in teaching business statistics at the University of Alabama 25 years ago (1950)

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: David G. Kleinbaum
 Department: Biostatistics
 College or University: UNC-CH

Title A Mini-course on Statistical Methods in Epidemiology Research
 Statistical Topic(s) covered? Adjusted rates, measures of association, methods of combining 2 x 2 tables, methods for comparing several proportions, riddit analysis

Intended Audience Biostatistics or Epidemiology students with a first course in stat.
 Are you the author (designer)? Yes X No previously completed
 Available for distribution to others? Yes X No Other
 Publisher or distributor the author

Cost of production (if author)
 Purchase Price Cost of duplicating and postage
 Rental Price
 Description Several sets on different topics as above, each set containing notes, problems and answers.
 Evaluation experience: Yes X No , Student opinion of instruction using questionnaire has been highly favorable

Name: David G. Kleinbaum
 Department: Biostatistics
 College or University: UNC-CH

Title Adjusted Rates: The Direct Method
 Statistical Topic(s) covered? Conditions for adjusting rates, how to adjust using the direct method, use of confounding factors other than age, post test.

Intended Audience Students in beginning statistics courses
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor The author

Cost of production (if author)
 Purchase Price Cost of duplication and postage
 Rental Price
 Description Programmed, 52 pp., with several illustrations integrated with content
 Evaluation experience: Yes X No , Evaluation by student opinion questionnaire

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: David G. Kleinbaum
 Department: Biostatistics
 College or University: UNC-CH

Title Random Variables and Distribution
 Statistical Topic(s) covered? Definition and examples of continuous and discrete random variables and distributions. Symmetry vs. skewness
 Intended Audience Students in Beginning Statistics
 Are you the author (designer)? Yes ☒ No ☐ (with Anna Kleinbaum and Sue Messick)
 Available for distribution to others? Yes ☒ No ☐ Other ☐
 Publisher or distributor the author
 Cost of production (if author) \$10
 Purchase Price Cost of duplication and postage
 Rental Price
 Description Programmed, 20 pages, with pre and post tests, with several illustrations integrated with content.
 Evaluation experience: Yes ☒ No ☐ , Evaluated by student questionnaires (N=52)

Name: D. Gillings, R. Siervogel, R. Kuebler, D. G. Kleinbaum and Anna Kleinbaum
 Department: Department of Biostatistics
 College or University: UNC-CH

Title Data Analysis for Physicians
 Statistical Topic(s) covered? All introductory topics
 Intended Audience Medical Students
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☒ No ☐ Other ☐
 Publisher or distributor Dr. Dennis Gillings, Department of Biostatistics, UNC-CH
 Cost of production (if author)
 Purchase Price Cost of reproduction and postage
 Rental Price
 Description A set of several packages written by various faculty at UNC
 Evaluation experience: Yes ☐ No ☒ ,

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: Justus Seely
Department: Statistics
College or University: Oregon State

Title	PSI course
Statistical Topic(s) covered?	Introductory

Intended Audience	Beginning Statistics
-------------------	----------------------

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No Other probably

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description	PSI syllabus outline and tests for Huntsberger and Billingsly and for General Statistics by Habor and Bungon.
-------------	---

Evaluation experience: Yes _____ No _____, _____

Name: H. E. McKean
Department: Statistics
College or University: University of Kentucky

Title PSI

Statistical Topic(s) covered? Descriptive Stat (univariate and bivariate), index nos., elementary probability, sampling and elementary inference (stressing normal and binomial) up to 2-sample problem

Intended Audience Sophomores in Business, AF and Social Sciences

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No X Other

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price 3 books at \$1.00 each

Rental Price _____

Description	Quantity	Unit	Amount	Total
1.00	1.00	1.00	1.00	1.00
2.00	2.00	2.00	2.00	2.00
3.00	3.00	3.00	3.00	3.00
4.00	4.00	4.00	4.00	4.00
5.00	5.00	5.00	5.00	5.00
6.00	6.00	6.00	6.00	6.00
7.00	7.00	7.00	7.00	7.00
8.00	8.00	8.00	8.00	8.00
9.00	9.00	9.00	9.00	9.00
10.00	10.00	10.00	10.00	10.00
11.00	11.00	11.00	11.00	11.00
12.00	12.00	12.00	12.00	12.00
13.00	13.00	13.00	13.00	13.00
14.00	14.00	14.00	14.00	14.00
15.00	15.00	15.00	15.00	15.00
16.00	16.00	16.00	16.00	16.00
17.00	17.00	17.00	17.00	17.00
18.00	18.00	18.00	18.00	18.00
19.00	19.00	19.00	19.00	19.00
20.00	20.00	20.00	20.00	20.00
21.00	21.00	21.00	21.00	21.00
22.00	22.00	22.00	22.00	22.00
23.00	23.00	23.00	23.00	23.00
24.00	24.00	24.00	24.00	24.00
25.00	25.00	25.00	25.00	25.00
26.00	26.00			

Evaluation experience: Yes _____ No _____, _____

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: Molly Park
 Department: Biostatistics-SPH
 College or University: Columbia University (S. Carolina)

Title Vital and Health Statistics
 Statistical Topic(s) covered? Public Health statistics

Intended Audience Undergraduate - School of Allied Health Sciences (in collaboration w/
 Are you the author (designer)? Yes X No Agner P.
 Available for distribution to others? Yes No Other
 Publisher or distributor In process

Cost of production (if author)
 Purchase Price
 Rental Price
 Description Four or five units on Health Statistics

Evaluation experience: Yes No X , Hope to.

Name: Betty Ullman
 Department: Biostatistics
 College or University: University of Michigan

Title (BIOS offered as Public Health 502 (part of our core course))
 Statistical Topic(s) covered? Descriptive stats., probability, sampling and probability distribution, estimation, hypothesis testing, X^2 , regression, correlation and all at a basic elementary level.

Intended Audience MPH students
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No Other not yet
 Publisher or distributor

Cost of production (if author)
 Purchase Price
 Rental Price
 Description See above. Note: Applications are aimed at health related or biological problems whenever possible.
 Evaluation experience: Yes No X ,

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: J. R. Grant, R. C. Duncan and M. C. Miller III
 Department: Biometry
 College or University: Medical University of South Carolina

Title Introductory Biometry for Medical Students
 Statistical Topic(s) covered? Descriptive stat, χ^2 , probability, Z-tests, t-tests (one two sample), regression and correlation, analysis of variance.
 Intended Audience Freshman Medical Students
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes _____ No X Other X
 Publisher or distributor Being considered for publication by John Wiley and Son, Inc.
 Cost of production (if author) _____
 Purchase Price \$4.50 per text
 Rental Price _____
 Description Objectives oriented approach to teaching introductory statistics. Topics covered listed above- mastery exams at end of each student unit.
 Evaluation experience: Yes X No _____, Student participation in and acceptance of much greater with OSU than with _____

Name: T. A. Walter
 Department: Statistics
 College or University: University of Wyoming

Title An Instructional Guide to Stat 301 D- An Individualized Study Program
 Statistical Topic(s) covered? Introductory course

Intended Audience Beginning Statistics Students
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes _____ No _____ Other _____
 Publisher or distributor _____
 Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description PSI
 Evaluation experience: Yes _____ No _____

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: Robert Lochner
 Department: Mathematics and Statistics
 College or University: Marquette University

Title Course Manual for Basic Statistics Course Using PSI
 Statistical Topic(s) covered? elementary probability, sampling, data display, basic distributions, estimation, hypothesis testing, linear regression
 Intended Audience Liberal arts, journalism, social science undergraduates
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor Department of Mathematics and Statistics, Marquette University
 Cost of production (if author)
 Purchase Price \$1.50
 Rental Price
 Description Manual (60 pages) for use with Neil Ullman's "Statistics: An Applied Approach: Xerox College Publishing".
 Evaluation experience: Yes No X,

Name: Ron Harrist
 Department: Biometry
 College or University: University of Texas School of Public Health at Houston

Title PSI for Introductory Biostatistics
 Statistical Topic(s) covered? Introductory Statistics with applications in Public Health (probability, tests, estimation, computers, non-parametric
 Intended Audience First year graduates in SPH
 Are you the author (designer)? Yes X No X Primarily using materials written at Univ. of
 Available for distribution to others? Yes No Other Texas-Austin. AM modifying the
 Publisher or distributor
 Cost of production (if author)
 Purchase Price
 Rental Price
 Description Similar to Remington and Scherk's text. Obtained materials from Utah, Austin Mechanical Engineering Dept., modified/extended them for use at UT-SPH.
 Evaluation experience: Yes X No , Used in fall, winter, spring quarters of 1974-75 with about 75 students. Evaluated by student opinion and by comparison of grades with standardly taught courses.

SELF-INSTRUCTION AND/OR PSI - SELF-DEVELOPED

Name: Howard L. Balsley
Department: Business Administration
College or University: Texas Tech. Univ.

Title A Modular Course using CAI instructional material
Statistical Topic(s) covered? Introductory topics
Intended Audience Beginning statistics
Are you the author (designer)? Yes X No Under development, not complete
Available for distribution to others? Yes No Other
Cost of production (if author)
Purchase Price
Rental Price
Description Modules will include self-programmed manual, with self-administered exams; the CAI program and lectures of instruction
Evaluation experience: Yes , No X,

Name: Douglas Zahn
Department: Statistics
College or University: Florida State University

Title PSI course in Intro. Statistics
Statistical Topic(s) covered? standard intro. topics
Intended Audience undergraduates non-calculus
Are you the author (designer)? Yes X No
Available for distribution to others? Yes X No Other
Publisher or distributor author
Cost of production (if author) cost of reproduction of manual
Purchase Price
Rental Price
Description PSI course with modifications allowing lectures
Evaluation experience: Yes ✓, No , attitudes towards instruction have been assessed

SLIDES -- SELF-DEVELOPED

Name: Ed Malmgren
 Department: (Roger Kirchner, Project Director)
 College or University: _____

Title Normal Approximation to the Binomial Distribution
 Statistical Topic(s) covered? Normal distribution as limiting distribution of binomial distributions.

Intended Audience Beginning Statistics

Are you the author (designer)? Yes X No _____

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Computer Graphics in Learning Math, Carlton College, Northfield, Mn. 55052

Cost of production (if author) _____

Purchase Price \$15 (for this and one below)

Rental Price _____

Description Ten slides; write-up will be completed summer '75.

Evaluation experience: Yes _____ No _____

Name: Ed Malmgren
 Department: (Roger Kirchner, Project Director)
 College or University: _____

Title Monte Carlo Study of Robustness of Student's t
 Statistical Topic(s) covered? Robustness of student's t

Intended Audience Intermediate Stats.

Are you the author (designer)? Yes X No _____

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Same as above

Cost of production (if author) _____

Purchase Price \$15 (for this and one above)

Rental Price _____

Description 26 slides and write-up (to be finished summer '75.

Evaluation experience: Yes _____ No _____

SLIDES - SELF-DEVELOPED

Name: David Appleyard
 Department: (Roger Kirchner, Project Director)
 College or University: Carleton College

Title Confidence Intervals for the Mean of a Normal Distribution
 Statistical Topic(s) covered? The relative size of confidence intervals as a function of sample size.

Intended Audience _____

Are you the author (designer)? Yes ☒ No _____

Available for distribution to others? Yes ☒ No _____ Other _____

Publisher or distributor Computer Graphics for Learning Math, Carleton College, Northfield, MN 55052

Cost of production (if author) _____

Purchase Price \$15 for four units

Rental Price _____

Description 16 slides plus write-up

Evaluation experience: Yes _____ No _____

Name: Same as above
 Department: _____
 College or University: _____

Title The Birthday Problem
 Statistical Topic(s) covered? Probability distributions for coincidences of birthdays

Intended Audience Beginning probability

Are you the author (designer)? Yes ☒ No _____

Available for distribution to others? Yes ☒ No _____ Other _____

Publisher or distributor Same as above

Cost of production (if author) _____

Purchase Price \$15

Rental Price _____

Description 6 slides plus write-up

Evaluation experience: Yes _____ No _____

SLIDES - SELF-DEVELOPED

Name: Robert Raymond
 Department: (Roger Kirchner, Project Director)
 College or University: University of Minn., Morris

Title Regression: The "Best" Line
 Statistical Topic(s) covered? The difference between using x to predict y and y to predict x

Intended Audience Beginning Statistics
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☒ No ☐ Other ☐
 Publisher or distributor Computer Graphics for Learning Math, Carleton College,
Northfield, MN 55052
 Cost of production (if author) _____
 Purchase Price \$15 for four units
 Rental Price _____
 Description 8 slides plus write-up

Evaluation experience: Yes ☒ No ☐ No formal evaluation reported, however

Name: Robert Raymond
 Department: (Roger Kirchner, Project Director)
 College or University: University of Minn., Morris

Title Scatter Plots
 Statistical Topic(s) covered? Example of correlated data. To give feeling for correlation coefficients

Intended Audience Beg. Stats.
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☒ No ☐ Other ☐
 Publisher or distributor Same as above

Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description 11 slides plus write-up

Evaluation experience: Yes ☐ No ☐

SLIDES - SELF-DEVELOPED

Name: Richard G. Kratchkoff
 Department: Statistics
 College or University: V. P. I.

Title Biometry
 Statistical Topic(s) covered? Confidence IUT-Tests of Hypoth. Anova - RGRN - Correlation
SAS - Goodness of fit - Probability - non-parametric

Intended Audience Graduate students and non-stat majors
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor Author

Cost of production (if author) 5¢ per slide
 Purchase Price
 Rental Price
 Description 1000 slides covering subject

Evaluation experience: Yes X No , Questionnaires

Name: N. S. Urgohart
 Department:
 College or University: New Mexico State Univ.

Title Slides of Statistical Tables
 Statistical Topic(s) covered?

Intended Audience Introductory statistics courses
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No Other ?
 Publisher or distributor

Cost of production (if author)
 Purchase Price
 Rental Price
 Description Slides of statistical tables for class use.

Evaluation experience: Yes No ,

SLIDES - SELF-DEVELOPED

Name: Thomas Hern, Cliff Long
 Department: Math
 College or University: Bowling Green State

Title Bivariate Normal
 Statistical Topic(s) covered? Correlation coefficient, bivariate distributions

Intended Audience Any level

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No Other If there is interest

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description Sequence of views of graph of bivariate-normal density function with correlation varying between $-.96$ and $.96$ computer generated

Evaluation experience: Yes No , Only informally

Name: Same as above
 Department:
 College or University:

Title Central Limit Theorem
 Statistical Topic(s) covered? Normal approximation to the binomial distributions

Intended Audience any level

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No Other If there is interest

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description Sequence of bar graphs for $b(n,p)$ for $p = .5$ and $p = .1$, computer generated

Evaluation experience: Yes No , Only informally

SLIDES - SELF-DEVELOPED

Name: Thomas Hern, Cliff Long
 Department: Math
 College or University: Bowling Green State

Title Bivariate Normal
 Statistical Topic(s) covered? Correlation coefficient, bivariate distributions

Intended Audience Any level

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No Other If there is an interest

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description Sequence of views of graph of bivariate normal density function with correlation varying between $-.96$ and $.96$ computer generated

Evaluation experience: Yes No , Only informally

Name: Same as above

Department:

College or University:

Title Central Limit Theorem

Statistical Topic(s) covered? Normal approximation to the binomial distributions

Intended Audience any level

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No Other If there is an interest

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description Sequence of bar graphs for $b(n,p)$ for $p = .5$ and $p = .1$, computer generated

Evaluation experience: Yes No , Only informally

SLIDES - SELF-DEVELOPED

Name: Marzine Green
 Department: (Roger Kirchner, Project Director)
 College or University: Jackson State College

Title Computing π by a Monte Carlo Method
 Statistical Topic(s) covered? Mean of random sample

Intended Audience Beginning Probability

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☒ No ☐ Other ☐

Publisher or distributor Computer Graphics for Learning Math, Carleton College,
Northfield, MN 55052

Cost of production (if author) _____

Purchase Price \$15 w/ slides on Buffon needle experiment

Rental Price _____

Description 11 slides plus write-up

Evaluation experience: Yes ☐ No ☐

Name: _____
 Department: _____
 College or University: _____

Title _____
 Statistical Topic(s) covered? _____

Intended Audience _____

Are you the author (designer)? Yes ☐ No ☐

Available for distribution to others? Yes ☐ No ☐ Other ☐

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes ☐ No ☐

SLIDE/TAPE - SELF-DEVELOPED

Name: David G. Kleinbaum and Anna Kleinbaum
Department: Department of Biostatistics and Educational Media
College or University: UNC-CH

Title Normal Probability Paper
Statistical Topic(s) covered? Use of normal probability paper, using environmental science laboratory applications

Intended Audience Environmental science laboratory technicians

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No X Other

Publisher or distributor Environmental Protection Agency (but can write to Prof. Jerome Kornreich, Department of Environmental Sciences and Engineering, School of Public Health,

Cost of production (if author)

Purchase Price

Rental Price

Description Slide-tape with accompanying self-instructional text.

Evaluation experience: Yes No X,

Name: Robert Horner
Department: Educational Media
College or University: University of North Carolina--Chapel Hill

Title Descriptive Statistics - Part I
Statistical Topic(s) covered? measures of central tendency

Intended Audience Environmental Science laboratory technicians

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No X Other

Publisher or distributor Environmental Protection Agency (but can write to Prof. Jerome Kornreich, School of Public Health, UNC-CH, 27514)

Cost of production (if author)

Purchase Price

Rental Price

Description Slide-tape with accompanying self-instructional text

Evaluation experience: Yes No X,

SLIDE/TAPE - SELF-DEVELOPED

Name: Janine Huff
 Department: Educational Media
 College or University: University of North Carolina - Chapel Hill

Title Descriptive Statistics - Part II
 Statistical Topic(s) covered? measures of dispersion, the normal distribution

Intended Audience Environmental science laboratory technicians

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor Environmental Protection Agency (but can write to Prof. Jerome Kornreich, School of Public Health, UNC-CH, 27514)

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description Slide-tape with accompanying text

Evaluation experience: Yes ☐ No ☐

Name: G. Rogers
 Department: _____
 College or University: New Mexico State University

Title _____
 Statistical Topic(s) covered? Permutation, combinations, discrete probability expectation

Intended Audience non-calculus students

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description Four-hour "lectures" with some problem sets

Evaluation experience: Yes ☐ No ☐

SLIDE-TAPE - SELF-DEVELOPED

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, Mike Gent

Department: Clinical Epidemiology and Biostatistics

College or University: McMaster University

Title Components of Variation in Clinical Measurement (Blood Pressure)

Statistical Topic(s) covered? Accuracy, validity, precision, reproducibility, bias (observer, patient, instrument)

Intended Audience Medical and Epidemiology Students

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor ☐

Cost of production (if author) ☐

Purchase Price ☐

Rental Price ☐

Description Slide-tape with notes, objectives, and tests

Evaluation experience: Yes ☒ No ☐ student opinion questionnaire

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, Mike Gent

Department: Clinical Epidemiology and Biostatistics

College or University: McMaster University

Title Clinical Uses of Measures of Disease Frequency

Statistical Topic(s) covered? incidence, prevalence, and other rates

Intended Audience Medical and Epidemiology Students

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor ☐

Cost of production (if author) ☐

Purchase Price ☐

Rental Price ☐

Description Slide-tape with accompanying notes, objectives and tests

Evaluation experience: Yes ☒ No ☐ student opinion questionnaire

SLIDE TAPE - SELF-DEVELOPED

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, Mike Gent
 Department: Clinical Epidemiology and Biostatistics
 College or University: McMaster University

Title Clinical Applications of Probability (Genetic Counseling and Clinical Diagnosis)
 Statistical Topic(s) covered? Definitions and rules of probability, including conditional probability, independent events, Bayes formula

Intended Audience Medical and epidemiology students

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor ☐

Cost of production (if author) ☐

Purchase Price ☐

Rental Price ☐

Description slide tape with accompanying notes (objectives) and tests

Evaluation experience: Yes ☒ No ☐ student opinion evaluation

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, Mike Gent
 Department: Clinical Epidemiology and Biostatistics
 College or University: McMaster University

Title Clinical Implications of Sampling

Statistical Topic(s) covered? Part I: What is sampling; Part II: What's in a Sample;
Part III: What's in a Sample (continued); Part IV: Biases in Patient Samples--
random sample, stratified sample, sample variation; binomial, poisson, normal, χ^2 and T-
distrib

Intended Audience Medical and Epidemiology students

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor ☐

Cost of production (if author) ☐

Purchase Price ☐

Rental Price ☐

Description slide-tape with accompanying notes, objectives, and tests

Evaluation experience: Yes ☒ No ☐ student opinion questionnaire

SLIDE-TAPE - SELF-DEVELOPED

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, Mike Gent
 Department: Clinical Epidemiology and Biostatistics
 College or University: McMaster University

Title Causation (Lung Cancer and Cigarettes) - Parts I & II
 Statistical Topic(s) covered? deterministic and probabilistic concepts of causation, odds and relative risk as measures of strength, consistency, specificity, temporality, biologic gradient, coherence
 Intended Audience Medical students
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☐ No ☒ Other ☐
 Publisher or distributor _____
 Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description Slide-tape with accompanying notes and tests (objectives also given)
 Evaluation experience: Yes ☒ No ☐, student opinion questionnaire

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, Mike Gent
 Department: Clinical Epidemiology and Biostatistics
 College or University: McMaster University

Title Data in Medicine (Growth and Development)
 Statistical Topic(s) covered? Part I: Statistics in Medicine and Scales of Measurement
Part II: Methods of Summarizing Data - mean, median, mode, range, variance, standard deviation, correlation coefficient; nominal, ordinal interval and ratio scales
 Intended Audience Medical and epidemiology students
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☐ No ☒ Other ☐
 Publisher or distributor _____
 Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description Slide-tape with accompanying notes, objectives, and tests.
 Evaluation experience: Yes ☒ No ☐, student opinion questionnaire

SLIDE-TAPE - SELF-DEVELOPED

Name: Dave Sackett, Gary Anderson, Charlie Goldsmith, and Mike Gent
 Department: Clinical Epidemiology and Biostatistics
 College or University: McMaster University

Title Statistical Inference
 Statistical Topic(s) covered? General characteristics of hypothesis testing; χ^2 test, Fisher's exact test, t-test (one sample, two sample and paired)

Intended Audience Medical and epidemiology students

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor ☐

Cost of production (if author) ☐

Purchase Price ☐

Rental Price ☐

Description Slide-tape with accompanying notes, objectives and problems

Evaluation experience: Yes ☒ No ☐, student opinion questionnaire

Name: ☐
 Department: ☐
 College or University: ☐

Title ☐
 Statistical Topic(s) covered? ☐

Intended Audience ☐

Are you the author (designer)? Yes ☐ No ☐

Available for distribution to others? Yes ☐ No ☐ Other ☐

Publisher or distributor ☐

Cost of production (if author) ☐

Purchase Price ☐

Rental Price ☐

Description ☐

Evaluation experience: Yes ☐ No ☐, ☐

TRANSPARENCIES - SELF-DEVELOPED

Name: B. L. Raktoe
 Department: Math/Statistics
 College or University: University of Guelph

Title Basic Statistics
 Statistical Topic(s) covered? All the standard topics, starting from presentation of data to analysis of variance
 Intended Audience Arts students (sociology, psychology, etc.)
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor
 Cost of Production (if author) \$100
 Purchase Price
 Rental Price
 Description
 Evaluation experience: Yes No

Name: Austin J. Bonis
 Department: Statistics
 College or University: Rochester Institute of Technology

Title
 Statistical Topic(s) covered? All courses in MS program. Each classroom has overhead projector
 Intended Audience Students in MS in Statistics program
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor
 Cost of Production (if author)
 Purchase Price
 Rental Price
 Description
 Evaluation experience: Yes X No There are student evaluation each quarter
 sometimes refer to these. We do not consider transparencies as anything unusual

TRANSPARENCIES - SELF-DEVELOPED

Name: Jan W. Kuzma
 Department: Biostatistics and Epidemiology
 College or University: Loma Linda University

Title _____
 Statistical Topic(s) covered? "All" basic topics

Intended Audience basic statistics course for non-majors
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes X No _____ Other _____
 Publisher or distributor _____

Cost of Production (if author) _____
 Purchase Price \$1.50 per transparency
 Rental Price _____

Description _____

Evaluation experience: Yes X No _____, Students appreciate them greatly

Name: Leonard J. Tashman
 Department: Statistics
 College or University: University of Vermont

Title _____
 Statistical Topic(s) covered? Various

Intended Audience Basic students
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes _____ No X Other _____
 Publisher or distributor _____

Cost of Production (if author) Approx. \$5.00 a piece
 Purchase Price _____
 Rental Price _____

Description Very much home made illustrations of selected concepts

Evaluation experience: Yes _____ No _____

TRANSPARENCIES - SELF-DEVELOPED

Name: Stanley Azen
 Department: Dept. of Community Medicine
 College or University: USC

Title Use of packaged programs in statistical analysis
 Statistical Topic(s) covered? univariate and multivariate analysis, packaged programs

Intended Audience Applied statisticians
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor

Cost of production (if author)
 Purchase Price
 Rental Price
 Description

Evaluation experience: Yes No ,

Name: Lee Hendrix
 Department: Statistics
 College or University: BYU

Title
 Statistical Topic(s) covered? Elementary statistics for education - central tendency, variability, correlation, simple linear regression, rank correlation, normal curve, hypothesis testing, analysis of variance, introduction to experimental design.

Intended Audience Students in Behavioral Sciences
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes X No Other
 Publisher or distributor BYU press

Cost of production (if author)
 Purchase Price
 Rental Price
 Description

Evaluation experience: Yes No X, only subjective positive comments from users.

TRANSPARENCIES - SELF-DEVELOPED

Name: Dr. Anand S. Katiyar
 Department: Department of Math. Sciences
 College or University: McNeese State University

Title Confidence Intervals
 Statistical Topic(s) covered? normal, students and chi-square distributions
 Intended Audience Math 231, 332 classes (statistics)
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor
 Cost of Production (if author)
 Purchase Price
 Rental Price
 Description
 Evaluation experience: Yes No

Name: Stanley Azen
 Department: Department of Comm. Med.
 College or University: USC

Title Practice and Pitfalls of Statistics
 Statistical Topic(s) covered? One and two sample parametric and non-parametric statistics. Uses one data set
 Intended Audience Data analysts
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor
 Cost of Production (if author)
 Purchase Price
 Rental Price
 Description
 Evaluation experience: Yes X No class evaluation

TRANSPARENCIES -- SELF-DEVELOPED

Name: Gary B. Beus
 Department: Statistics
 College or University: Brigham Young University

Title Stat. 501 - Study Guide
 Statistical Topic(s) covered? Most topics covered in an elementary and intermediate course in statistics
 Intended Audience Graduate students in non-statistics majors
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No Other possibly
 Publisher or distributor
 Cost of Production (if author)
 Purchase Price
 Rental Price
 Description over 200 transparencies containing page-by-page coverage of elementary and intermediate topics in statistics
 Evaluation experience: Yes No

Name: Raoul LePage
 Department: Statistics/Probability
 College or University: Michigan State University

Title Business statistics: Part 1-Probability
 Statistical Topic(s) covered? Introductory probability without calculus, as preparation for statistics for business undergraduates. Probability, independence, conditioning, random variables, distributions, moments, central limit theorem, empirical distributions, etc.
 Intended Audience
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor
 Cost of Production (if author) \$50 plus labor
 Purchase Price
 Rental Price
 Description
 Evaluation experience: Yes No

TRANSPARENCIES - SELF-DEVELOPED

Name: Janet Myhre
 Department: _____
 College or University: Claremont Men's College

Title _____
 Statistical Topic(s) covered? Reliability theory and operations research

 Intended Audience _____
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes _____ No _____ Other _____
 Publisher or distributor _____
 Cost of Production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description _____
 Evaluation experience: Yes _____ No _____

Name: University of Maryland
 Department: Statistics/Mathematics
 College or University: _____

Title _____
 Statistical Topic(s) covered? Statistics lecture notes

 Intended Audience _____
 Are you the author (designer)? Yes _____ No _____
 Available for distribution to others? Yes _____ No _____ Other _____
 Publisher or distributor _____
 Cost of Production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description _____
 Evaluation experience: Yes _____ No _____

TRANSPARENCIES - SELF-DEVELOPED

Name: Robert Amsden
 Department: Administrative Science and Engineering
 College or University: Wright State Univ. Dayton, Ohio

Title _____
 Statistical Topic(s) covered? Intro. Business Statistics

 Intended Audience Undergraduate and graduate students
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes _____ No _____ Other not decided
 Publisher or distributor _____

 Cost of Production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description _____

 Evaluation experience: Yes _____ No _____, _____

Name: Leone Y. Low
 Department: Math
 College or University: Wright State University

Title Examples, lists of theorems, review topics, etc.
 Statistical Topic(s) covered? When lecturing on topics such as histograms, frequency tab
examples are tedious to put on the blackboard, but necessary. It would be convenient if
textbook author would develop a set, but one can develop one's own set
 Intended Audience Undergraduate non-major
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes _____ No _____ Other _____
 Publisher or distributor _____

 Cost of Production (if author) materials, about 25¢ per sheet
 Purchase Price _____
 Rental Price _____
 Description Statements of problems, pre-quizzes. Good examples can be used in several c
(modular approach on some topics) good sketches are difficult at the blackboard
 Evaluation experience: Yes _____ No _____, _____

TRANSPARENCIES - SELF-DEVELOPED

Name: A. Grandage
 Department: Statistics
 College or University: NC State University

Title Typical Types of Experimental Data
 Statistical Topic(s) covered? Raw Data: discrete & continuous; frequency tables and histograms, cumulative frequency polygon, Data from comparative experiments, regression data.

Intended Audience Undergraduate elementary statistics students

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No X Other

Publisher or distributor

Cost of production (if author) Price of thermofax transparency paper

Purchase Price

Rental Price

Description Set of 11 8 1/2 x 11 transparencies

Evaluation experience: Yes No X ,

Name: A. Grandage
 Department: Statistics
 College or University: N. C. State University

Title Normal Errors of First and Second Kind - Test of Mean
 Statistical Topic(s) covered? Normal errors of 1st and 2nd kind; test of mean, relative change in α & β as sample size increases

Intended Audience undergraduate statistics students

Are you the author (designer)? Yes X No

Available for distribution to others? Yes No X Other

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description 1 - 8 1/2 x 11 transparency

Evaluation experience: Yes No X ,

TRANSPARENCIES - SELF-DEVELOPED

Name: David G. Kleinbaum
 Department: Biostatistics
 College or University: UNC-CH

Title Factor Analysis
 Statistical Topic(s) covered? Use of correlation matrix, principal components, rotation, factor scores.

Intended Audience Advanced graduate students in health and behavioral sciences (no calculus or matrices used, however)
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor (Designed by Anna Kleinbaum and Muriel Wang)

Cost of Production (if author) \$50
 Purchase Price
 Rental Price

Description Approx. 12 transparencies in color, with overlays. First draft form. will be revised. Handout available also.

Evaluation experience: Yes No X

Name: Same as above
 Department:
 College or University:

Title Principles of Probability Applied to Two-Way Tables (a visual oriented module)
 Statistical Topic(s) covered? Probability principles, two way tables, introduction to χ^2 for independence, eyeballing independence.

Intended Audience Students in Beginning Statistics
 Are you the author (designer)? Yes X No Designer is Anna Kleinbaum
 Available for distribution to others? Yes No X Other Plans being made.
 Publisher or distributor

Cost of Production (if author) \$100
 Purchase Price
 Rental Price

Description A set of 16 transparencies with overlays and gates, programmed to facilitate student involvement and interaction in lecture setting, using color as an abstract fading cueing (color)

Evaluation experience: Yes X No , Evaluated by classroom experiment with randomly assigned treatment and control groups of 26 persons in each. Results showed treatment having

(over)

TRANSPARENCIES - SELF-DEVELOPED

Name: David G. Kleinbaum
 Department: Biostatistics
 College or University: UNC-CH

Title Conditions for Adjusting Rates
 Statistical Topic(s) covered? Introduction to adjusted rates.

Intended Audience students in beginning statistics
 Are you the author (designer)? Yes X No Designer - Anna Kleinbaum
 Available for distribution to others? Yes No X Other Plans being made.
 Publisher or distributor

Cost of Production (if author) \$15
 Purchase Price
 Rental Price

Description 1 transparency with overlaps and gates, using color. Illustrates example given in Remington and Schork's text on adjusting for age to compare mortality rates in two states

Evaluation experience: Yes X No , Used in courses. No evaluation other than generally favorable comments by students.

Name:
 Department:
 College or University:

Title
 Statistical Topic(s) covered?

Intended Audience
 Are you the author (designer)? Yes No
 Available for distribution to others? Yes No Other
 Publisher or distributor

Cost of Production (if author)
 Purchase Price
 Rental Price

Description

Evaluation experience: Yes No ,

VIDEO-TAPES - SELF-DEVELOPED

Name: William D. Schafer
Department: Measurement and Statistics
College or University: University of Maryland

Title _____
 Statistical Topic(s) covered? Material is intended to introduce quantitative research method
Preview of math for statistics, data collection strategies, descriptive statistics (math
review is completed, regression and correlation in progress)
 Intended Audience Introductory; will be used for educational research courses
 Are you the author (designer)? Yes X No _____ (co-author)
 Available for distribution to others? Yes _____ No X Other In process
 Publisher or distributor _____

 Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description TV presentation with extensive use of "usuals" and accompanying mimeograph
handout for further explanation and "note-taking". Group or individual use.
 Evaluation experience: Yes _____ No _____

Name: Judy Rosenblatt
Department: Computer Science and Biometry
College or University: Case Western University

Title _____
Statistical Topic(s) covered? Introduction, Histograms, Mean and Variance

Intended Audience Medical Students and other non mathematical audiences.
Are you the author (designer)? Yes X No _____
Available for distribution to others? Yes X No _____ Other _____
Publisher or distributor not yet available

Cost of production (if author) @ 1500 each (three at 10 min. each)
Purchase Price \$75 each
Rental Price _____
Description _____

Evaluation experience: Yes X No _____, Videotapes for elementary stat and intermediate probability and stat.

VIDEO-TAPES -- SELF-DEVELOPED

Name: Alan Lasater
 Department: Statistics
 College or University: University of Tennessee

Title Stat. 4310 - Correlation and regression analysis
 Statistical Topic(s) covered? The usual in a one-quarter senior course in Multiple and partial, linear and non-linear correlation and regression methods emphasizing applied aspects

Intended Audience Majors in Psychology, Business, Engineering, Statistics
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No X Other
 Publisher or distributor Control of tape in hands of Department of TV services, office of continuing education, C.H. Weaver, V.P. of continuing education.
 Cost of production (if author) not known
 Purchase Price
 Rental Price
 Description Consists of 50 minute lectures before a live audience for 30 contact hour course, B & W.
 Evaluation experience: Yes No

Name: Arthur Dempster and David Hoaglin
 Department: Statistics
 College or University: Harvard

Title Tapes of lectures in course: Statistics and Society
 Statistical Topic(s) covered?

Intended Audience
 Are you the author (designer)? Yes X No
 Available for distribution to others? Yes No Other
 Publisher or distributor
 Cost of production (if author)
 Purchase Price
 Rental Price
 Description
 Evaluation experience: Yes No

VIDEO-TAPES - SELF-DEVELOPED

Name: R. A. McLean
Department: Statistics
College or University: University of Tennessee

Title Stat. 3450 - Introductory Statistical Analysis
Statistical Topic(s) covered? Probability distributions, 1 and 2 sample significance tests, elementary linear regression and correlation

Intended Audience	Stat. Majors, industrial engineers, others interested
-------------------	---

Are you the author (designer)? Yes ☒ No ☐

Available for distribution to others? Yes No X Other

Publisher or distributor Control of tape by Department of Television services, office of continuing education, the University of Tennessee

Cost of production (if author)	Not Known
--------------------------------	-----------

Purchase Price

Rental Price

Description Consists of 50 minute lectures before life audience for a 30 contact hour course. B & W.

Evaluation experience: Yes ☐ No ☐

Name: D. B. Owen

Department: Statistics

College or University: Southern Methodist University

Title On the History of Statistics and Probability

Statistical Topic(s) covered?

Intended Audience Statisticians, Historians and educated lay audineces

Are you the author (designer)? Yes ☐ No ☒ but self-developed at SMU

Available for distribution to others? Yes No X Other

Publisher or distributor Available at SMU

Cost of production (if author) \$1,075.00

Purchase Price**Rental Price**

Description	Not yet edited - raw tape of conference
-------------	---

Evaluation experience: Yes ☐ No ☐

VIDEO-TAPES - SELF-DEVELOPED

Name: Donald F. Butcher
 Department: Statistics and Computer Science
 College or University: West Virginia University

Title Using SAS
 Statistical Topic(s) covered? _____

Intended Audience Graduate Students and Resident Faculty
 Are you the author (designer)? Yes _____ No X but self-developed at WWU
 Available for distribution to others? Yes _____ No X Other _____
 Publisher or distributor _____

Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description These tapes have been scheduled for production for 3 years but are still scheduled
 Evaluation experience: Yes _____ No _____, _____

Name: Robert Lochner
 Department: Mathematics and Statistics
 College or University: Marquette University

Title Video-Tape
 Statistical Topic(s) covered? elementary probability, normal distribution, sampling distributions and central limit theorem, one sample t and z tests
 Intended Audience students enrolled in basic (PSI) statistics course
 Are you the author (designer)? Yes X No _____
 Available for distribution to others? Yes X No _____ Other _____
 Publisher or distributor Dept. of Mathematics and Statistics, Marquette University
 Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____
 Description 5 video-taped lectures on topics in basic statistics that students find most difficult.
 Evaluation experience: Yes _____ No X, _____

VIDEO-TAPE - SELF-DEVELOPED

Name: Doug Zahn
 Department: Statistics
 College or University: Florida State U.

Title Discriminant Analysis

Statistical Topic(s) covered? Basics of discriminant analysis and use of BMD04M

Intended Audience Consultees with 2 or 3 Quarters of intro app. stat.

Are you the author(designer)? Yes No X

Is it available for distribution to others? Yes X No Other

Name and address of publisher or distributor (if available)

Duane Meeter, FSU-Stat, Tallahassee

Cost of Production (if you are author) ?

Purchase Price

Rental Price send tape--we will copy to it.

Brief description of contents See above

Would you consider using locally developed materials in your courses?

Yes No

Have you done any experimentation or evaluation of instructional materials that you or others have developed? If so, explain.

Title Principal Component Analysis

Statistical Topic(s) covered? Basics of principal components and computer programs available.

Intended Audience Consultees with 2 or 3 quarters of intro. app. stat.

Are you the author (designer)? Yes No X

Is it available for distribution to others? Yes X No Other

Name and address of publisher or distributor (if available)

Duane Meeter, FSU-Stat., Tallahassee

Cost of Production (if you are author) ?

Purchase Price

Rental Price send tape, we will copy to it

Brief description of contents See above

Would you consider using locally developed materials in your courses?

Yes No

Have you done any experimentation or evaluation of instructional materials that you or others have developed? If so, explain.

VIDEO TAPE - SELF-DEVELOPED

Name: Douglas Zahn
 Department: Statistics
 College or University: FSU

LISTING OF MEDIA MATERIALS IN STATISTICS

Category (Transparencies, Slides, Film, etc.) Video tape
 Title "A Worm's Eye View of the Development of Nonparametric Methods", by E. J. G. Pitman
 Statistical Topic(s) covered? This is a videotape of a colloquium given by Pitman of FSU
 Intended Audinece Statistics Faculty and grad students
 Are you the author (designer)? Yes No X
 Is it available for distribution to others? Yes X No Other
 Name and address of publisher or distributor (if available) me at the above address
 Cost of Production (if you are author) ?
 Purchase Price None - Just supply videotape
 Rental Price
 Brief description of contents See above
 Would you consider using locally developed materials in your courses?
 Yes No
 Have you done any experimentation or evaluation of instructional materials that you or others have developed? If so, explain.

Title "A Colloquium Presented by, Dirac to FSU Statistics Dept."
Dirac talked about this contribution to physics & statistics
 Intended Audience statistics faculty & grad students
 Are you the author (designer)? Yes No X
 Is it available for distribution to others? Yes X No Other
 Name and address of publisher or distributors (if available) me at above address
 Cost of Production (if you are author) ?
 Purchase Price None - Just supply videotape
 Rental Price
 Brief description of contents See above
 Would you consider using locally developed materials in your courses?
 Yes No
 Have you done any experimentation or evaluation of instructional materials that you or others have developed? If so, explain.

MISCELLANEOUS - SELF-DEVELOPED

(GAMES, DEVICES, WALLCHARTS, COMPUTER MATERIALS AND OTHER)

Name: James F. Heltsche

Department: Experimental Statistics

College or University: University of Rhode Island

Title Relevant Statistics (Computer Data File)

Statistical Topic(s) covered? Raw data from many different fields to use to illustrate statistical topics covered in statistical methods courses, two semesters.

Intended Audience _____

Are you the author (designer)? Yes X No _____

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Should be available Fall 1975.

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description A data file of actual data and description of experiment to be used in teaching statistical methods classes.

Evaluation experience: Yes X No _____, In the process of developing above mentioned file.

Name: R. E. Spaulding

Department: Math/Statistics

College or University: Radford College

Title Experiments in Probability

Statistical Topic(s) covered? probability, binomial distribution, additional formula, complementary events, conditional probability, independent events, mutually exclusive events.

Intended Audience Freshmen in General Education Course in Probability and Statistics

Are you the author (designer)? Yes X No _____

Available for distribution to others? Yes _____ No X Other _____

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description dice, spinners, cards, colored chips, wooden blocks, sliderules, orange cubes, coins, cups with activity sheets.

Evaluation experience: Yes X No _____, Attitude questionnaire - in general results have been favorable.

MISCELLANEOUS - SELF-DEVELOPED

(GAMES, DEVICES, WALLCHARTS, COMPUTER AND OTHER)

Name: Donald G. Watts
 Department: Math
 College or University: Queen's University at Kingston

Title Transformations ((Mechanical) Dynamic Models)
 Statistical Topic(s) covered? Transformations (Ref. Amer. Statistician, Feb '73)

Intended Audience Statistics, probability and math students
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☐ No ☐ Other ☐ could be
 Publisher or distributor as above

Cost of production (if author) _____
 Purchase Price \$10 plus labor
 Rental Price _____
 Description _____

Evaluation experience: Yes ☒ No ☐, by classroom use

Name: Donald Bentley
 Department: Math
 College or University: Pamona

Title Games
 Statistical Topic(s) covered? _____

Intended Audience pre-calculus statistical inference class
 Are you the author (designer)? Yes ☒ No ☐
 Available for distribution to others? Yes ☐ No ☒ Other ☐
 Publisher or distributor _____

Cost of production (if author) _____
 Purchase Price _____
 Rental Price _____

Description Games - spinner which has different areas of colors which causes students to guess which type base is being used. Creates feeling of loses etc, in statistical inference
 Evaluation experience: Yes ☐ No ☐, _____

MISCELLANEOUS - SELF-DEVELOPED

(GAMES, DEVICES, WALLCHARTS, COMPUTER MATERIALS AND OTHER)

Name: Ernest J. Lytle, Jr.

Department: Math Sci.

College or University: Florida Technical University

Title Data Book

Statistical Topic(s) covered? Data and articles for elementary and advanced courses (to be used with texts by Ingram, Mendelball and Tanur)

Intended Audience Beginning and/or advanced students (applied oriented)

Are you the author (designer)? Yes ☐ No ☒ , but developed at Florida Tech.

Available for distribution to others? Yes ☐ No ☒ Other ☐

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description Articles and data for student exercises.

Evaluation experience: Yes ☐ No ☒ , _____

Name: John Griffin

Department: Graduate Studies

College or University: Baruch College of CCNY

Title Games and Wallcharts

Statistical Topic(s) covered? _____

Intended Audience _____

Are you the author (designer)? Yes ☐ No ☒

Available for distribution to others? Yes ☐ No ☐ Other ☐

Publisher or distributor _____

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes ☐ No ☐ , _____

MISCELLANEOUS - SELF-DEVELOPED
(GAMES, DEVICES, WALLCHARTS, COMPUTER MATERIALS AND OTHER)

Name: D. F. Andrews
Department: Math
College or University: University of Toronto

Title SNAP Computing System
Statistical Topic(s) covered? Sampling Distributions, Graphical Displays, Regression, Anova

Intended Audience Used with 1st year ---- Ph.D.

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor Dept. Stat. Princeton Univ.

Cost of production (if author) \$25

Purchase Price

Rental Price

Description Simple statistical language

Evaluation experience: Yes No X,

Name:
Department:
College or University:

Title
Statistical Topic(s) covered?

Intended Audience

Are you the author (designer)? Yes No

Available for distribution to others? Yes No Other

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

MISCELLANEOUS - SELF-DEVELOPED

Name: Douglas Zahn
Department: Statistics
College or University: FSU

Title Computer presented questions on the normal distribution and testing hypothesis about binomial proportions and the normal mean.
Intended Audience Students in introductory applied statistics courses
Are you the author (designer)? Yes X No _____
Is it available for distribution to others? Yes X No _____ Other _____
me, at above address
Cost of Production (if you are author) These questions took about 3 weeks of my time and 6 weeks of a grad assistants' time to complete, start to finish. This does NOT include programming time.
Purchase Price No charge at present
Rental Price time; but this is subject to change.
Brief description of contents A series of problems, with solutions, in the above mentioned areas.
Would you consider using locally developed materials in your courses?
Yes X No _____
Have you done any experimentation or evaluation of instructional materials that you or others have developed? Yes If so, explain. Attitudes of students using these questions were assessed.

Description of Media

Materials Used

But Developed

Elsewhere

AUDIO-TAPES - MATERIALS DEVELOPED ELSEWHERE

Name: Leonard Sweet
 Department: Math and Statistics
 College or University: University of Akron

Title Statistics - An Audio-Tutorial Approach
 Statistical Topic(s) covered? _____

Intended Audience Introductory Statistics - non-science

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Charles E. Merrill Publishing Co., Columbus, Ohio 43216

Cost of production (if author) _____

Purchase Price \$100 per set

Rental Price _____

Description Used only as supplementary material in addition to classroom instruction

Evaluation experience: Yes X No _____, Intend to modularize entire course, develop short review TV tapes to accompany classroom lectures

Name: Austin J. Bonis
 Department: Statistics
 College or University: Rochester Institute of Technology

Title Statistics, Audio-Tutorial Approach
 Statistical Topic(s) covered? _____

Intended Audience Introductory Statistics

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Charles E. Merrill Publishing Co., Columbus, Ohio 45216

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes _____ No _____, _____

FILMS - MATERIALS DEVELOPED ELSEWHERE

Name: Roger G. Peterson
 Department: Statistics
 College or University: Oregon State University

Title Statistics at a Glance
 Statistical Topic(s) covered? Central tendency, variation, descriptive statistics, correlation

Intended Audience Beginners, laymen

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor McGraw-Hill, New York

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

Name: Stanley Azen
 Department: Community Medicine
 College or University: USC

Title Statistics at a Glance
 Statistical Topic(s) covered? Elementary description statistics

Intended Audience Beginners

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor John Wiley Publishing Company

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

FILMS - MATERIALS DEVELOPED ELSEWHERE

Name: Donald G. Watts

Department: Math

College or University: Queen's University at Kingston

Title BBC Introductory Films on statistics (7 films)

Statistical Topic(s) covered? _____

Intended Audience beginning

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor BBC Open University

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes _____ No _____

Name: Molly Park

Department: SPH

College or University: Columbia Univ.

Title Fact Finder of the Nation

Statistical Topic(s) covered? collection of data

Intended Audience Undergraduate allied health sciences

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor US Government Bureau of the Census

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes _____ No _____

FILMS & FILMSTRIPS - MATERIALS DEVELOPED ELSEWHERE

Name: Ronald Randles
 Department: Statistics
 College or University: University of Iowa

Title Statistical Quality Control Process Control
 Statistical Topic(s) covered? _____

Intended Audience _____

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Trans-World Films (1951)

Cost of production (if author) _____

Purchase Price _____

Rental Price \$3.60

Description Methods involved in process control as used by the federal government

Evaluation experience: Yes _____ No _____, _____

Name: Same as above

Department: _____

College or University: _____

Title Statistics at a Glance

Statistical Topic(s) covered? Descriptive statistics and their use

Intended Audience Elementary statistics course

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Y X No _____ Other _____

Publisher or distributor John Wiley and Son, Inc. Pub. (1972)

Cost of production (if author) _____

Purchase Price _____

Rental Price \$10.95

Description Illustrations of the use of descriptive statistic, distributions, measures of central tendency, variability, percentiles and correlations

Evaluation experience: Yes _____ No _____, _____

FILMS & FILMSTRIPS - MATERIALS DEVELOPED ELSEWHERE

Name: Donald Bentley
 Department: Math
 College or University: Pamona

Title The Mathematical Association film on Decision Theory by David Blackwell
 Statistical Topic(s) covered? _____

Intended Audience _____

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor AMA

Cost of production (if author) _____

Purchase Price _____

Rental Price _____

Description _____

Evaluation experience: Yes _____ No _____, _____

Name: Thomas Hern, Cliff Long
 Department: Math
 College or University: Bowling Green State

Title Random Events C2400
 Statistical Topic(s) covered? Notion of Probability

Intended Audience _____

Are you the author (designer)? Yes _____ No X

Available for distribution to others? Yes X No _____ Other _____

Publisher or distributor Kent State University

Cost of production (if author) _____

Purchase Price _____

Rental Price \$6.00

Description 31 B and W PSSC Physics film on what is random behavior, some experiments are carried out.

Evaluation experience: Yes _____ No _____, _____

FILMS & FILMSTRIPS - MATERIALS DEVELOPED ELSEWHERE

Name: Doug Bates
 Department: Math
 College or University: Queen's University at Kingston

Title Mathematics in Action: Statistics
 Statistical Topic(s) covered? probability, binomial distribution, hypothesis testing, normal distribution, experimental design, correlation, statistical inference

Intended Audience Introductory Statistics

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor BBC-TV Enterprises

Cost of production (if author)

Purchase Price

Rental Price

Description 10 episodes from the BBC open university program to be viewed sequentially

Evaluation experience: Yes No ,

Name: N. E. Reinhard
 Department: Math
 College or University: University of Montana

Title Probability
 Statistical Topic(s) covered? Elementary probability

Intended Audience Graduate School students/ leaders

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor Contemporary School Mathematics Program, Carbondale, Ill.

Cost of production (if author)

Purchase Price

Rental Price postage

Description Six classroom presentations by Arthur Fayle with bright 6th graders

Evaluation experience: Yes No ,

SELF-INSTRUCTION AND/OR PSI - MATERIALS DEVELOPED ELSEWHERE

Name: David S. Birkes
Department: Statistics
College or University: Oregon State University

Title Introduction to Statistics (PSI)
Statistical Topic(s) covered? Descriptive statistics, probability, distributions, estimation, tests of hypothesis (t-tests)

Intended Audience Non-major undergraduates

Are you the author (designer)? Yes No X

Available for distribution to others? Yes No Other

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes X No , I have used PSI material developed at OSU in two introductory statistics courses.

Name:
Department:
College or University:

Title
Statistical Topic(s) covered?

Intended Audience

Are you the author (designer)? Yes No

Available for distribution to others? Yes No Other

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

SLIDES - MATERIALS DEVELOPED ELSEWHERE

Name: Stanley Sclove
 Department: Math
 College or University: University of Illinois (Chicago Circle Campus)

Title Chances Are

Statistical Topic(s) covered? Distribution of some of two dice, capture-recapture method of estimating wildlife population, other topics from Tanur's STATISTICS: A Guide to the Unknown.

Intended Audience Good for laymen or college classes

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor Illinois Bell Telephone Co., Chicago. Contact: James Kennedy

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

Name: W.J. Federer

Department: Biometry

College or University: Cornell

Title

Statistical Topic(s) covered?

Intended Audience Introductory Statistics courses

Are you the author (designer)? Yes No X

Available for distribution to others? Yes No Other ?

Publisher or distributor

Cost of production (if author)

Purchase Price

Rental Price

Description Slides of statistical tables for class use.

Evaluation experience: Yes No ,

GAMES, DEVICES, WALLCHARTS, AND OTHER - MATERIALS DEVELOPED ELSEWHERE

Name: William H. Fellner
 Department: Biostatistics
 College or University: Virginia Commonwealth Univ.

Title: Game
 Statistical Topic(s) covered? Regression, linear programming, buffer mode, other optimization financial management.

Intended Audience Administration students (decision science)
 Are you the author (designer)? Yes No X
 Available for distribution to others? Yes X No Other
 Publisher or distributor Kendall/Hunt Pub. Co.. Also requires computer programming, teacher manual, etc. available from authors in Dubuque Iowa.
 Cost of production (if author)
 Purchase Price \$2.95/manual (1 per student)
 Rental Price
 Description Students manual, computer program, other teaching materials (printed)

Evaluation experience: Yes , No X,

Name: U. of Maryland
 Department:
 College or University:

Title: Games
 Statistical Topic(s) covered?

Intended Audience
 Are you the author (designer)? Yes No
 Available for distribution to others? Yes No Other
 Publisher or distributor
 Cost of production (if author)
 Purchase Price
 Rental Price
 Description Number by - designed to pull random numbers

Evaluation experience: Yes , No ,

GAMES, DEVICES, WALLCHARTS, AND OTHER - MATERIALS DEVELOPED ELSEWHERE

Name: Donald F. Butcher

Department: Statistics/Computer Science

College or University: W. Virginia University

Title Charts

Statistical Topic(s) covered? Computer assisted testing and instruction

Intended Audience Undergrad

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor Lansford Publishing Co.

Cost of production (if author)

Purchase Price

Rental Price

Description

Evaluation experience: Yes No ,

Name: Thomas Hern, Cliff Long

Department: Math.

College or University: Bowling Green

Title HEXSTAT 000 868-6

Statistical Topic(s) covered? Binomial distribution

Intended Audience Undergrad, high school

Are you the author (designer)? Yes No X

Available for distribution to others? Yes X No Other

Publisher or distributor Harcourt, Brace (school division)

Cost of production (if author)

Purchase Price \$3.00

Rental Price

Description Galton board

Evaluation experience: Yes No ,

GAMES, DEVICES, WALLCHARTS, AND OTHER - MATERIALS DEVELOPED ELSEWHERE

Name: Leone Y. Low
 Department: Math
 College or University: Wright State University

Title Pseudo-normal finite population.
 Statistical Topic(s) covered? Sampling from a normal population for those who might not always want to use Gauss, Randle or a table of random numbers. This one is similar to Snedecor's pic weight example, but is in Burr's new book.
 Intended Audience Undergraduates
 Are you the author (designer)? Yes No X
 Available for distribution to others? Yes No X Other
 Publisher or distributor
 Cost of production (if author)
 Purchase Price \$4.00
 Rental Price
 Description The third moment about the mean is zero, and the fourth moment stat. of interest is 3.01.
 Evaluation experience: Yes , No ,

Name: R. E. Spaulding
 Department: Math/Statistics
 College or University: Radford College

Title Yahtzee
 Statistical Topic(s) covered? The game is used to introduce some problems in probability
 Intended Audience Freshmen in general education course in Probability and Statistics
 Are you the author (designer)? Yes No X
 Available for distribution to others? Yes X No Other
 Publisher or distributor Milton Bradley
 Cost of production (if author)
 Purchase Price .97
 Rental Price
 Description The game is played to introduce the rules and terminology. Teacher made problems in probability are tehn solved by students.
 Evaluation experience: Yes X, No , Questionnaire on attitude - in general the attitudes have been very favorable.

A P P E N D I X C

SELECTED REVIEWS FROM MADELINE P. BERRY'S:

REPORT ON THE REVIEW AND ASSESSMENT OF SELECTED

AUDIO-VISUAL INSTRUCTIONAL MATERIAL

JULY, 1975, UNIVERSITY OF NORTH CAROLINA

PREFACE

As a preface to designing instructional materials in statistics, it was decided to survey and evaluate the existing materials in this subject area. Because the interest was largely in developing visual educational units, the following areas were determined as those which should be surveyed and evaluated:

- * film
- * filmstrip
- * overhead transparencies
- * videotape

The more common non-visual methods of instruction such as lecture, textbook and self-instructional materials were not reviewed because of their dependance on words and their lack of visualization.

It was felt that by evaluating the existing instructional media, the areas of need could best be determined. In other words, the goal of the effort was to determine which subject areas within statistics were presently available in high-quality instructional units and most importantly, which areas lack high-quality alternative forms of instruction. This later category — the areas in which there was little available material — would act as an indicator of where a remedy was needed and where a well-designed, systematic instructional unit would be most useful. Our goal is to then fill this gap by developing such instructional units using the latest in instructional design and educational media.

PROCEDURE:

The following instructional units were reviewed during the Spring of 1975. All are developed as statistics instructional units, and are designed, at least partially, in the visual mode.

<u>Medium</u>	<u># Reviewed</u>
Filmstrips	2
16 mm films	12
Overhead Transparencies	8
Video Tape	<u>4</u>
TOTAL	26

A Copy of the Assessment Tool is included for the reader to see how the information was collected about each unit reviewed. The first section was simply a bibliographic section asking for Author, Title, Publisher and Date of publication. This information would allow any reader to locate the instructional unit if desired. Section A related to the content of the material reviewed. It included: Content area, a summary abstract, the objectives and the intended audience. Section B. was related to the medium of instruction ... whether it was a video tape, a 16 mm film, or overhead transparencies. This section evaluated how well the medium itself was used and designed. Information asked for in this section included: the medium, whether the unit was visual or verbal, whether it was problem or concept related, the design considerations and whether student participation was brought about by the instructional unit. Section C. dealt with the educational aspect of the medium. Using Gagne's 6 Events of Instruction, the material was assessed on its ability to #1 Gain and Maintain Attention, #2 Recall previously learned knowledge, #3 Guide learning, #4 provide student feedback, #5 Establish conditions for remembering and transferring information

page three

and #6, assess learning. Section D. assessed the results of the instructional unit: how well did it do what it was supposed to? How useful was it for our purposes and was it field tested? The final section E. asked for references identified in the instructional unit assessed.

ASSESSMENT TOOL

I. Bibliographic References

Author:

Publisher: Lansford Publishing Co.

Title: "Complete Course in Statistics: Regression and Correlation Analysis"

Date: 1973

A. Content:

Content Area: Regression and Correlation Analysis

Abstract: Definitions and Comparisons were made of regression and correlation analysis. Other topics covered included: scatter diagrams, regression lines, the least squares principle, regression coefficients, standard error of estimate, and curvilinear regression. A class exercise was given as well.

Objectives / learning function: None identified.

Subject Matter: Statistics 7
 Agriculture 8
 Health 1
 Business 1
 General 1

Intended Audience: Not identified; probably college level.

B. Medium

Mode or Medium: Overhead Transparency Series

Visual or Verbal: Both

Problem or Concept Related: 93% Problem Oriented

Design Considerations: Color was not used to highlight or cue information. The only color was used for the entire transparency; no color coding. The transparencies were largely word-oriented except for two fine visual transparencies on curvilinear regression."

Student Participation: Yes

C. Instruction (Gagne's events)

1. Gain and Maintain Attention: Yes
2. Recall of Previously Learned Knowledge: No
3. Guides the Learning (Cues and Hints): No
4. Provides Feedback: Yes
5. Establishes conditions for remembering and transfer of learning: Yes
6. Assessment of Learning: No

D. Results

1. Was it successful at teaching the objectives: No objective stated.
2. Was the medium appropriate for the content: Teaches title fairly.
3. It is useful for our purpose? Yes.
4. Was it field tested? Unknown. Results _____.

E. References

Ezakial, Mordecai & Fox. Methods of Correlation and Regression Analysis. John Wiley and Sons, 1959.

Mason, Robert D. Statistical Techniques in Business and Economics. Richard Irwin Company, 1970.

Richmond, Sam B. Statistical Analysis. New York: The Ronald Press Company, 1964.

ASSESSMENT TOOL

I. Bibliographic References

Author: Publisher: Lansford Publishing Co.

Title: Complete Course in Statistics: Probability

Date: 1973

A. Content:

Content Area: Probability

Abstract: The concept of probability was introduced and discussed. The types of probability discussed were: objective, subjective, permutations and combinations, joint probability, tree diagrams, conditional probability and Bayes Theorem.

Objectives / learning function: Not identified.

Subject Matter: Statistics 11
Business 1
General 1

Intended Audinece: Not identified.

Math Level: General

B. Medium

Mode or Medium: Overhead Transparencies

Visual or Verbal: Both

Problem or Concept Related: Problem % each 75%

Design Considerations: Color was not used as an aid to learning, although some shading was used to cue the learner. The overhead transparencies were predominantly word-oriented with little use of shape, and little visual conceptualization.

Student Participation: Not demanded.

C. Instruction (Gagne's events)

1. Gain and Maintain Attention: Yes
2. Recall of Previously Learned Knowledge: No
3. Guides the Learning (Cues and Mints): No
4. Provides Feedback: No
5. Establishes conditions for remembering and transfer of learning: No
6. Assessment of Learning: No

D. Results

1. Was it successful at teaching the objectives: No objective; did seem to teach learning function.
2. Was the medium appropriate for the content: Yes
3. Is it useful for our purpose: Yes
4. Was it field tested? Not known

E. References

Boot, Cox. Statistical Analysis For Managerial Decisions. New York: McGraw-Hill, 1970.

Chow, Ya-lun. Statistical Analysis with Business and Economic Applications. New York: Holt-Rinehard and Winston, 1969.

Clark, C. T. and L. L. Schkadi. Statistical Methods for Business Decisions. Cincinnati: South-Western Publishing Company, 1969.

Hamberg, Mo. Statistical Analysis for Decision Making. Harcourt, Brace & W, 1970.

Noel, P. & R. Jessen. Basic Statistics for Business and Economics. New York: Wiley and Sons, 1971.

Spurr, William A., C. Bonini. Statistical Analysis for Business Decisions. Homewood, Illinois: Richard D. Irwin, Inc., 1973.

ASSESSMENT TOOL

I. Bibliographic References

Author Kleinbaum & Kleinbaum

Publisher Kleinbaum & Kleinbaum

Title Principles of Probability Applied to Two-Way Tables

Date 1974

A. Content:

Content Area Probability and the Two-Way Table

Abstract: A definition, description and at least 2 illustrations were given of the following areas: opposite event, relative frequency, true and impossible events, union events, conditional events, independent events, observed frequency, expected probabilities and frequencies, Chi Square Statistics, Independent vs. Dependent Variables, independence and eyeballing

Objectives/Learning function

These were identified and given to all the students.

Intended Audience Biostatistics Students in the School of Public Health, University of North Carolina; Biostatistics #105.

B. Medium

Mode or Medium Overhead Transparency Unit

Visual or Verbal Visual and Verbal

Problem or Concept Related Problem 9; Concept 3 % each 24% Concept, 72% Problem

Design Considerations Extensive use of color coding. Through effective use of gating, the information was presented as it was needed and when the student was ready for it. Systematic presentation of ideas and release of information. Immediate reinforcement of learning. Good conceptualizing, although numerous words were printed on the transparencies.

Student Participation Yes. Participation was brought about by the release of information only after the student had answered the question.

C. Instruction (Gagne's events)

1. Gain and Maintain Attention Yes
2. Recall of Previously Learned Knowledge Yes
3. Guides the Learning (Cues and Hints) Yes
4. Provides Feedback Yes
5. Establishes conditions for remembering and transfer of learning Yes
6. Assessment of Learning Yes

D. Results

1. Was it successful at teaching the objectives Yes
2. Was the medium appropriate for the content Yes
3. Is it useful for our purposes Yes
4. Was it field tested? Results _____ Yes
There was a significant improvement in amount of learning and retention with the transparency unit.

E. References:

ASSESSMENT TOOL

I. Bibliographic Reference

Author Robert Johnson & Lynn Hall, UCLA Publisher John Wiley and Sons
Title Statistics at a Glance (a Halios Film) Date 1972 Publishing Co.

A. Content

Content Area Descriptive Statistics

Abstract Descriptive statistics was defined as that part of statistics that organizes and describes information. The following concepts were introduced and described: frequency distribution, the use of histograms, curves, normal vs. skewed distribution, central tendency with the mean, median and mode, standard deviation, and positive and negative correlation.

Objectives/learning function Probably intended as an introduction to statistics in college Statistics courses. Not identified.

Intended Audience College

Subject Breakdown General Math Level Low

B. Medium

Mode or Medium 16 mm film

Visual or Verbal Visual; Color

Problem or Concept Related Concept % each 60%

Design Considerations A well-done animated cartoon at the beginning of the film; the cartoon was a political one that introduced humor and the practicality of knowing how to use statistics. The visuals were well-designed throughout the film, the information was presented in a stimulating and varied fashion to keep the student's attention. The narrator's voice was somewhat lulling making the listener lose his concentration.

Student Participation No

C. Instruction (Gagne's events)

1. Gain and Maintain Attention Yes
2. Recall of Previously Learned Knowledge Yes
3. Guides the Learning (Cues and Hints) Yes
4. Provides Feedback No
5. Establishes conditions for remembering and transfer of learning Yes
6. Assessment of Learning No

APPENDIX D

SURVEY AND APPRAISAL

FORMS FOR

AV MATERIALS

Developed 1976
by Anna Kleinbaum

INSTRUCTIONAL MATERIALS RATING SHEET

Presentation # _____

Rate this presentation from 1 to 7 on each of the scales below:

- | | | |
|--|----------------------|---|
| 1. OVERALL RATING
superior quality | <u>1 2 3 4 5 6 7</u> | inferior quality |
| 2. logical, coherent | <u>1 2 3 4 5 6 7</u> | disorganized, confusing |
| 3. art work technically
superior | <u>1 2 3 4 5 6 7</u> | art work technically
inferior |
| 4. art work conceptually
superior | <u>1 2 3 4 5 6 7</u> | art work technically
inferior, distracting |
| 5. sound quality techni-
cally superior | <u>1 2 3 4 5 6 7</u> | sound quality technically
inferior |
| 6. script conceptually
superior | <u>1 2 3 4 5 6 7</u> | script conceptually
inferior |
| 7. use of color
superior | <u>1 2 3 4 5 6 7</u> | use of color
inferior |
| 8. vocabulary at
audiences level | <u>1 2 3 4 5 6 7</u> | vocabulary too easy
or difficult |
| 9. very interesting,
fun | <u>1 2 3 4 5 6 7</u> | very dull, boring |
| 10. very helpful,
useful | <u>1 2 3 4 5 6 7</u> | irrelevant useless |
| 11. too easy | <u>1 2 3 4 5 6 7</u> | too hard |
| 12. too repetitious | <u>1 2 3 4 5 6 7</u> | not enough drill |
| 13. too short | <u>1 2 3 4 5 6 7</u> | too long |
| 14. too fast | <u>1 2 3 4 5 6 7</u> | too slow |

15. Any comments or suggestions: _____

PLEASE RETURN BY APRIL 7

MEDIA SURVEY FORM

FORMS USED
IN ASA
SURVEY OF
AV MATERIALS
(1975)

Name: _____
Department: _____
College or University: _____
Location: _____

1. For each of the following categories of media materials, check if you have used materials developed elsewhere, have developed or are developing your own materials on topics in statistics. (Check as many boxes as applies for each category).

	Developed Elsewhere	Self Developed	Being Developed
Transparencies	☐	☐	☐
Audio tape	☐	☐	☐
Slides	☐	☐	☐
Slide/Tape	☐	☐	☐
Video-tape	☐	☐	☐
Films	☐	☐	☐
Films trips	☐	☐	☐
Wall Charts	☐	☐	☐
Games	☐	☐	☐
Picture Series	☐	☐	☐
Self-instruction	☐	☐	☐
PSI	☐	☐	☐
Other _____			

2. Names and addresses of other persons whom you know to be designing media materials in statistics.

a) Name _____ Phone: _____
Address _____

b) Name _____ Phone: _____
Address _____

c) Name _____ Phone: _____
Address _____

- For each media category checked above, briefly describe the contents of the materials involved by completing the attached sheet(s). (Note: We are particularly interested in self-developed media materials not widely known.)

PLEASE RETURN BY APRIL 7

MEDIA SURVEY FORM

Name: _____
Department: _____
College or University: _____
Location: _____

1. For each of the following categories of media materials, check if you have used materials developed elsewhere, have developed or are developing your own materials on topics in statistics. (Check as many boxes as applies for each category).

	Developed Elsewhere	Self Developed	Being Developed
Transparencies	☐	☐	☐
Audio tape	☐	☐	☐
Slides	☐	☐	☐
Slide/Tape	☐	☐	☐
Video-tape	☐	☐	☐
Films	☐	☐	☐
Films trips	☐	☐	☐
Wall Charts	☐	☐	☐
Games	☐	☐	☐
Picture Series	☐	☐	☐
Self-instruction	☐	☐	☐
PSI	☐	☐	☐
Other _____			

2. Names and addresses of other persons whom you know to be designing media materials in statistics.

a) Name _____ Phone: _____
Address _____

b) Name _____ Phone: _____
Address _____

c) Name _____ Phone: _____
Address _____

For each media category checked above, briefly describe the contents of the materials involved by completing the attached sheet(s). (Note: We are particularly interested in self-developed media materials not widely known.)

In most instances it will not be necessary for you to complete the program you are evaluating to answer the following questions. These questions are appropriate for any self-instructional materials that assume a teaching function. A negative answer to a question will suggest a possible weakness in the program.

1. Does the program confirm the learners' response?
2. Is the instruction sequenced from simple to complex?
3. Is the programming technique appropriate for the learning function being treated?
4. Is the "critical idea" principle applied to the structuring of program frames?
5. Is there evidence of over prompting? If your answer is yes, briefly describe the nature of the over prompting.
6. Is the display format suitable from a perceptual point of view?
7. If panels are used, do they serve a prompting function?
8. Did the program hold your interest?

On the scale presented below, rate the program by placing a check mark at any point along the continuum.

Poor

Good

Excellent



Your comments:



health sciences consortium

Screening Guide for Self-instructional Materials

SECTION I

Please provide the following information:

Program Title _____ Date _____

Author(s) /Degrees _____

Department _____ School _____ University _____

Primary User _____ Secondary User(s) _____
/level /level

Format _____ Number of Slides (if any) _____

Running Time _____ Estimated Study Time _____

SECTION II

Please check that the program has the following elements:

____ Introductory Statement
____ Content Outline
____ Review Segment(s)
____ Post-test and Answers
____ Behavioral Objectives
____ Distribution Release
____ Post-test Answers

____ Recommended Preparatory Skills/Resources
____ Recommended Follow-up Activities
____ Written releases for any copyrighted
materials included in the program
____ * Pre-test and Answers
____ * List of Reference Materials
____ * Biography of Author

* NOTE - THESE ELEMENTS ARE OPTIONAL (see reverse side)

SECTION III

Please check the congruency of the behavioral objectives with the content and the evaluation instrument(s) by writing the number of the behavioral objective next to the:

1. item(s) in the evaluation instrument which corresponds to each objective, and the
2. sections of content (or content outline) which correspond to each objective in the printed matter.*

*NOTE - Slide/tape programs should be accompanied by a complete script.

SECTION IV

Please check to ascertain that the technical quality of the software (videotape, audiotape, slides and illustrations) is suitable for use as a master for purposes of duplication.

Please forward a copy of this screening guide along with the program and its ancillary materials to the Health Sciences Consortium.



Instructional Materials Appraisal Instrument

Health Sciences Consortium

Appraiser's Name _____ (Faculty _____ Student _____) College _____

Department _____ Title of Material _____

Author(s) _____ Today's Date _____

Directions: All study guides or manuals should be perused prior to viewing materials for appraisal. Use reverse side for comments if necessary. Use the following code in responding to statements. Circle the number which applies.

5 - STRONGLY AGREE 4 - AGREE 3 - NO OPINION (or not applicable) 2 - DISAGREE 1 - STRONGLY DISAGREE

I. CONTENT QUALITY

A. Accuracy of Content

	SA	A	N/A	D	SD
1. Content is up-to-date	5	4	3	2	1
2. Factual information is accurate	5	4	3	2	1
3. Visual representation of the content is accurate	5	4	3	2	1

COMMENTS _____

B. Appropriateness of Content

	SA	A	N/A	D	SD
4. Material contributes relevant information to the topic under study	5	4	3	2	1
5. Content is consistent with established practice in the field	5	4	3	2	1
6. Content is appropriate for the intended audience	5	4	3	2	1
7. Content is useful for the intended audience	5	4	3	2	1

COMMENTS _____

C. Scope and Organization of Content

	SA	A	N/A	D	SD
8. The content is well organized	5	4	3	2	1
9. The organization of the content is efficient	5	4	3	2	1
10. Amount of information presented is adequate to cover the objectives	5	4	3	2	1

COMMENTS _____

D. Overall Appraisal of Content Quality

11. Overall quality of the content is: (Circle One)	Excellent	5
	Good	4
	Fair	3
	Poor	2
	Unacceptable	1

COMMENTS _____

E. Area of Major Weakness

12. Area of major content weakness is: (Circle One)	No major weakness	5
	Accuracy	4
	Appropriateness	3
	Scope and Organization	2
	Others as listed in comments below	1

COMMENTS _____

II. TECHNICAL QUALITY

A. Audio Visual

	SA	A	N/A	D	SD
13. Sound is not distorted	5	4	3	2	1
14. Quality of narration is good	5	4	3	2	1
15. Illustrations are clear	5	4	3	2	1
16. Inferences of size, distance, action, and life-likeness are good	5	4	3	2	1

COMMENTS _____

B. Overall Appraisal of Technical Quality

17. Overall technical quality of the program can best be described as: (Circle One)	Excellent	5
	Good	4
	Fair	3
	Poor	2
	Unacceptable	1

COMMENTS _____

C. Area of Major Weakness

18. Area of major technical weakness is: (Circle One)	No major weakness	5
	Sound	4
	Visualization	3
	Illustration	2
	Others as listed in comments below	1

COMMENTS _____

III. EDUCATIONAL QUALITY

A. Objectives

	SA	A	N/A	D	SD
19. Objectives are clearly stated	5	4	3	2	1
20. There is agreement between the objectives and the evaluation instrument	5	4	3	2	1
21. There is agreement between objectives and content	5	4	3	2	1

COMMENTS _____

B. Guides (Workbook)

	SA	A	N/A	D	SD
22. Instructional guide is well organized	5	4	3	2	1
23. Instructional guide facilitates the student's use of the materials	5	4	3	2	1

COMMENTS _____

C. Instructional Design

	SA	A	N/A	D	SD
24. Content is communicated efficiently	5	4	3	2	1
25. Sequence is logical	5	4	3	2	1
26. Cues are effective	5	4	3	2	1
27. Adequate review is provided	5	4	3	2	1
28. Presentation is not boring	5	4	3	2	1
29. Selection of media is appropriate	5	4	3	2	1
30. Visuals contribute to the understanding of the content	5	4	3	2	1
31. Pacing is effective	5	4	3	2	1

COMMENTS _____

D. Evaluation

	SA	A	N/A	D	SD
32. Opportunities for student self-evaluation are adequate	5	4	3	2	1
33. Evaluation items reflect the objectives	5	4	3	2	1

COMMENTS _____

E. Overall Appraisal of Educational Quality

34. Program as an instructional tool is: (Circle One)	Excellent	5
	Good	4
	Fair	3
	Poor	2
	Unacceptable	1

COMMENTS _____

F. Area of major weakness

35. The area of major weakness is: (Circle One)	No major weakness	5
	Objectives	4
	Guides	3
	Design	2
	Evaluation	1

COMMENTS _____

PLEASE ANSWER THE FOLLOWING QUESTIONS AFTER COMPLETING THE APPRAISAL. (Circle the appropriate answer.)

36. Major area of weakness for these materials is:

CONTENT EDUCATIONAL TECHNICAL NONE

37. Materials are most suitable for:

UNDERGRADUATES GRADUATES POSTDOCTORAL

38. Overall how would you rate the quality of the program?

EXCELLENT GOOD FAIR POOR UNACCEPTABLE

39. Overall how would you rate the effectiveness of the program?

EXCELLENT GOOD FAIR POOR UNACCEPTABLE

Please feel free to add additional comments.

FILM EVALUATION

EVALUATED BY _____ PREVIEW DATE _____

FILM TITLE _____

SUBJECT _____ PRODUCER _____

YEAR PRODUCED _____ LENGTH (Minutes) _____ COLOR _____ B&W _____

FORMAT _____ STYLE _____

INTENDED AUDIENCE _____ Film Obtained from _____

I. Motion was created by:

- | | |
|-------------------------------|----------------------------|
| _____ a. motion of subject | _____ c. motion of camera |
| _____ b. motion of background | _____ d. Motion of editing |

II. Sound was created by:

- | | |
|------------------------------|--------------------------|
| _____ a. dialogue | _____ c. music |
| _____ b. environmental sound | _____ d. periods of void |
| | _____ e. narration |

III. Rating Categories

Circle Appropriate Rating

- | | | | | |
|---|---|---|---|---|
| 1. Application to subject area | 1 | 2 | 3 | 4 |
| 2. Accuracy and authenticity | 1 | 2 | 3 | 4 |
| 3. Organization and continuity | 1 | 2 | 3 | 4 |
| 4. Ability to attract and hold interest | 1 | 2 | 3 | 4 |
| 5. Suitability for intended audience | 1 | 2 | 3 | 4 |
| 6. Aesthetic qualities | 1 | 2 | 3 | 4 |
| 7. Quality of the photography | 1 | 2 | 3 | 4 |
| 8. Quality of the sound | 1 | 2 | 3 | 4 |
| 9. Value of this film to you | 1 | 2 | 3 | 4 |

RATING KEY

1. Excellent, few other films do a better job in this category
2. Average, satisfactory
3. Poor, unsatisfactory but could be used if necessary
4. Unacceptable in this category, use only with careful explanation prior to screening.

IV. Additional rating comments:

V. Recommended for future: YES _____ NO _____
Reason(s): _____

*If one method was used predominantly, place a check mark opposite the appropriate category. If two or more methods were used, but their use varied quantitatively, rank * them by placing one, two three or four check marks opposite the respective categories.

VI. Description of Film:

VII. I would use this film to:

Discuss use:

Present information _____

Summarize information _____

Pose a Problem _____

Shape behavior _____

Test _____

Enrich or extend _____

Develop or change attitudes _____

Other _____

UMAP PEER REVIEW FORM - **PAGES**

5/12/77

**172
ONLY**

INSTRUCTIONS:

Please read through the enclosed instructional material, making annotations in the margins (with a red ball point pen) or on separate sheets as you go along. Read the enclosed Peer Review Suggestions and answer the specific questions on this form and sign below. Additional suggestions are welcome.

Please return within two weeks to Ross L. Finney, Review Editor, EDC/UMAP, 55 Chapel Street, Newton, MA 02160, or to the person who sent you the module for review, the following:

1. An annotated copy of the instructional material;
2. This form completed and signed;
3. Any additional suggestions and comments.

Unit No. _____ Title _____

Version _____ Author _____

RECOMMENDATION: (Please check one of the following.)

I feel this material . . .

- ☐ is unsuitable for further consideration for use in an applications-oriented module system and should be returned to the author.
- ☐ has potential but should be returned to the author to make the improvements noted as essential on the following pages.
- ☐ is of merit and can, without major revision, be made available for student review and field testing.

☐ _____

May we reveal your name to the author?

☐

Yes

☐

No

Signed _____ Date _____

Position _____

Department _____

Institution _____

I. TOPIC, TREATMENT, AUDIENCES, AND AUTHOR

1. What, in your judgment, would be appropriate audiences, if any, for this material?

Audience

Estimated Student
Study Time

a. _____ hrs.

b. _____ hrs.

2. In what ways does either the topic or the treatment meet the needs of these audiences?

3. If this material appears to duplicate material that already exists, please describe the existing material and give a reference to it, or suggest how this material is an improvement over the existing material.

4. Does your institution have a course or courses for which the unit is appropriate? If so, please list them or describe them briefly.
